

March 01, 2025



Vol - 03

# EIM INSIGHTS

Your Monthly Update on Energy Developments

**EIM Focus:**

Industry Highlights

Energy Jobs

What's New in industry

Upcoming Trainings



01/03/2025

# MARCH EDITION

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# OPEC Chief: Oil Sector Needs \$640 Billion in Annual Investments to Meet Future Demand

The oil and gas industry will require an annual investment of approximately \$640 billion to sustain global energy demand until 2050, according to OPEC Secretary-General Haitham Al Ghais. Speaking at a recent energy conference, Al Ghais emphasized that maintaining a stable and reliable oil supply will necessitate significant funding across multiple sectors of the oil industry.



## Massive Investment in Exploration and Production

The exploration and production segment will take the lion's share of investment, with \$14.2 trillion needed over the coming decades—averaging \$525 billion per year. This funding is essential for discovering and developing new oil fields while ensuring the continued efficiency of existing operations.

## Infrastructure and Refining Also Demand Capital

Beyond upstream operations, refining, transportation, and storage infrastructure will require approximately \$1.9 trillion in cumulative investment. The sector must modernize existing refineries and develop new projects to meet evolving fuel demands and environmental regulations.

## Challenges and the Role of Energy Transition

Despite these investment needs, the oil sector faces challenges such as policy uncertainties, geopolitical risks, and energy transition pressures. However, Al Ghais reaffirmed that oil will remain a key component of the global energy mix for the foreseeable future. He urged governments and investors to support long-term funding strategies to ensure energy security and market stability.

## Outlook for the Oil Industry

As the world balances energy transition goals with economic growth, oil companies and producing nations will need to strategically allocate capital to enhance production efficiency, reduce carbon footprints, and integrate advanced technologies. The projected investment levels reflect the industry's commitment to maintaining supply reliability while adapting to changing global energy dynamics.

# ADNOC Gas Seals Landmark 14-Year LNG Supply Deal with Indian Oil Corporation

ADNOC Gas has solidified its presence in the global LNG market by signing a 14-year sales and purchase agreement (SPA) with Indian Oil Corporation Ltd (IndianOil). The deal will see ADNOC Gas supply up to 1.2 million tonnes per annum (mtpa) of liquefied natural gas (LNG) to India's leading integrated energy company, reinforcing the UAE-India energy partnership.



## A Strengthened Partnership

This agreement formalizes the previous Heads of Agreement (HoA) between the two companies, transitioning into a long-term SPA. The first LNG deliveries are scheduled to begin in 2026, ensuring a steady and reliable gas supply to support India's growing energy needs.

## Strategic Deal with Economic Impact

Valued between \$7 billion to \$9 billion, the agreement marks a major milestone in ADNOC Gas' expansion strategy. The UAE continues to play a key role in India's ambition to increase natural gas consumption to 15% of its primary energy mix by 2030, promoting lower-carbon energy solutions.

## Fatema Al Nuaimi, CEO of ADNOC Gas, highlighted the significance of this deal, stating:

*"This agreement underscores our strong relationship with IndianOil and reinforces the deep-rooted energy ties between the UAE and India. As a responsible energy supplier, ADNOC Gas remains committed to delivering reliable, lower-carbon gas to support India's energy transition."*

## A Growing LNG Footprint in Asia

ADNOC Gas has been actively expanding its customer base, securing multiple LNG agreements ranging from 0.4 MTPA to 1.2 MTPA over terms extending up to 14 years. India, a key growth market, remains a strategic focus as demand for natural gas continues to rise.

## Das Island: A Pillar of LNG Excellence

The LNG supplied under this agreement will come from ADNOC Gas' Das Island liquefaction facility, a world-class production hub with a capacity of 6 MTPA. As one of the longest-operating LNG plants globally, Das Island has shipped over 3,500 LNG cargoes worldwide, playing a critical role in securing global energy supplies.

## Looking Ahead

With India's LNG demand expected to surge in the coming years, ADNOC Gas is well-positioned to enhance regional energy security while supporting global efforts toward a lower-carbon future. This agreement is another testament to the UAE's growing role in shaping the energy landscape of tomorrow.



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**Experience:**

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**Qualifications:**

- Diploma/ ITI (Mechanical)

**Job Responsibilities:**

- Study of P&I diagram.
- Preparation of equipment layout GA drawing.
- Preparation of Skid GA/frontal piping drawing of filter, softener, MB.
- Preparation of RO skid Piping, GA, UF Skid Piping GFA, FEDI skid piping GA.
- Preparation of Interconnecting Piping layout showing pipe routing, marking supports.
- Checking of Piping isometric drawings and Bill of Material based on GA.
- Checking Pipe supports/frame drawings with bill of material.
- Preparation of civil outline drawings based on GA drawing.
- Drafting of fabrication drawings involving structural steel and piping.
- Generating BOM for the above.
- Hands on experience with Plant 3D.

**Skill/ Knowledge Required:**

- P&ID analysis.
- CAD Software Proficiency.
- Piping Design.
- Fabrication Drawing Drafting.
- Bill of Materials (BOM) Generation.
- Isometric Drawing Review.
- Plant 3D

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Featherlite The Address, B- Block, 6th Floor, Zamin Pallavaram, Chennai – 600044

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- Engineers**  
Instrument | Electrical | Loss Prevention | Process
- Senior Designers**  
Electrical | Piping | Process CAD
- Designers**  
Electrical | Piping | Telecom | Instrument | Process CAD SSPID Specialist

**Qualification and Experience:**

- Lead and Senior Engineers should have a minimum 15+ years of working experience with relevant expertise in Gas-Oil Separation Plant (GOSP).
- Engineers: 10+ years of experience
- Designers: 5+ years of experience

Relevant applicants can be sent through to: [recruitment@kentplc.com](mailto:recruitment@kentplc.com)





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**Walk-In Interview : Visakhapatnam, Andhra Pradesh**  
**Date:** 23<sup>rd</sup> February 2025 (Sunday)  
**Time:** 9:00 AM to 4:00 PM  
**Venue:** Keys Select Hotel, 75 Feet Road, Dabagardens, Visakhapatnam – 530020, Andhra Pradesh

**Open Positions:**

- Health, Safety & Environment (HSE)
- Mechanical Execution – Piping
- Quality Assurance & Quality Control (QA/QC)
- Construction Planning
- Execution – Civil
- Execution – E&I (Electrical & Instrumentation)

**Job Location:** Pan India & Saudi Arabia

L&T is committed to fostering an inclusive workplace and encourages women professionals re-entering the workforce and persons with disabilities to apply.

**Important Notes:**

- Carry two copies of your CV, with the applied post clearly mentioned on top
- If unable to attend the walk-in, email your CV to [CAREERSONSHORE@Larsentoubro.com](mailto:CAREERSONSHORE@Larsentoubro.com)
- For more details, visit <https://larsentoubrocareers.peoplestrong.com/home>

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## WE ARE HIRING

### Production Engineering Manager

**Thiruvallur**

**Role Definition**  
Leads team for maintenance and repair of tools while ensuring safety and performance standards

**Required Skills:**


- Partnering with leadership on major issues in equipment performance and maintenance to the managers; Supporting the team in implementing robust solutions to improve overall efficiency, yield, and uptime of the equipment.
- Complying with safety, health, and environmental guidelines and participating in continuous improvement of the procedures while performing equipment maintenance.
- Developing process and supervising inspection of machinery and equipment to identify problems and potential solutions, and performing appropriate troubleshooting, and preventive maintenance procedures.
- Driving continuous improvement for work orders, spare parts, and maintenance parts consumption, and scheduled preventive maintenance procedures using Computerized Maintenance Management System

**Closed on 05<sup>th</sup> March 2025**

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**8 March 2025** 🕒 9am – 3pm

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<b>INSTRUMENT. &amp; CONTROL (5+)</b> I&C Engineer/Designer Leaders I&C Engineer/Designer Principals I&C Engineers/Designers I&C SPT Admins I&C Analyzer Engineers	<b>PIPING (8+)</b> Piping Engineer/Designer Leaders Piping Engineer/Designer Principals Piping Stress Engineers Piping Designers	<b>MECHANICAL (5+)</b> Mechanical Leaders Mechanical Principals Rotating Equipment Engineers - Compressors / Pumps	<b>STATIC EQUIPMENT (10+)</b> Static Equipment Leaders Static Equipment Principals Pressure Vessels Engineers Storage Tank Design Engineers
<b>PROCESS ENGINEERING (5+)</b> Process Engineering Leaders Process Principal Engineers Process Engineers	<b>PIPING/SPOOLGEN (3+)</b> Spoolgen Engineers	<b>ELECTRICAL (5+)</b> Electrical Engineer/Designer Leaders Electrical Engineer/Designer Principals Electrical Engineers/Designers	<b>PACKAGE UNITS (10+)</b> Package Unit Leaders Package Unit Principals Package Engineers
<b>CIVIL AND STRUCTURES (5+)</b> CAS Leaders CAS Principals CAS Engineers CAS Designers	<b>PROJECT MANAGEMENT (10+)</b> Project Managers Project Engineers Engineering Managers	<b>COST CONTROL (5+)</b> Quantity Surveyor Leaders Quantity Surveyors - Civil/Steel Structure	<b>HSE (5+)</b> Process Safety Leaders Process Safety Principals Process Safety Engineers
<b>FACILITIES (5+)</b> Facilities Leaders Facilities Principals Telecom Engineers	<b>PROCUREMENT (5+)</b> Buyers Expeditors	<b>PLANNING (10+)</b> Planning Engineer Leaders Planning Engineers	<b>PRODUCTION CONTROL (5+)</b> Production Control Leaders Production Control Engineers

**HOW TO ATTEND**

1. Send CV for pre-screening to: applicants.in@technicasreunidas.es Please include in the subject the following structure: NAME, POSITION AND EXPERIENCE
2. Walk-in with your documents (Copy of your CV with ID photo) to the venue location. Pre-validated candidates will have priority in the walk-in interviews.

**LOCATION**

<b>CHENNAI</b> Global Infacity Park Block C, 6th Floor, No. 40, MGR Main Rd, Kodandarama Nagar, Perungudi, Chennai - 600096	<b>BANGALORE</b> Prestige Tower, 7th Floor, 99, Residency Road, Shanthala Nagar, Bengaluru - 560025
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- ✓ **GRADUATION YEAR:**  
2024 PASS-OUTS
- ✓ **BENEFITS:**  
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**WALK-IN DRIVE DETAILS:**

**Important Dates:**  
 Saturday, 8 Mar 2025 - **ITI & Diploma**  
 Sunday, 9 Mar 2025 - **Engineering Graduates**

**Time:** 09:00 AM – 03:00 PM  
**Venue:** WABAG House, No: 17, 200 Ft Thoraipakkam - Pallavaram Main Road, Sunnambu Kolathur, Chennai - 600117



**WHAT TO BRING?**  
 Updated CV | Academic Documents | Aadhaar Card (Photocopy)

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- Modular Slab Formwork Systems – e.g., Tabla, Skydeck, Quickdeck, etc.
- Monolithic Aluform
- Jumpform – e.g., PERI RCS/ACS, Doka XClimb/Lubeca, etc.
- Safety Windscreen EPS – Hydraulic, Crane Climbing

##### Key Responsibilities:

- Plan, deploy, and manage formwork manpower effectively.
- Track labor productivity and implement corrective actions as required.
- Conduct onsite toolbox talks and technical briefings for workmen and superiors.
- Ensure adherence to formwork safety protocols and best practices.

##### Required Skills and Qualities:

- Strong communication skills with both workmen and superiors.
- Ability to conduct technical briefings and safety training sessions onsite.
- Familiarity with project-specific safety standards and regulations.

##### Preferred Knowledge:

- Quality Management System (QMS)
- Safety Risk Assessment and managing Corrective and Preventive Actions (CAPA)
- Market Rates and relevant IS codes
- General specifications and Standard Operating Procedures (SOPs)

**Qualification : DCE/B.E**

**Experience : 8 to 10 years**

Location :

Mumbai

Send your resume at:

Jayant.shukla@kalpataruprojects.com

Contact on:

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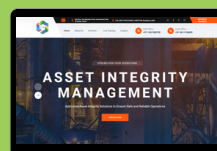
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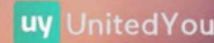
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**IR & Admin Manager**

**Requirement :**


- Bachelor's degree with additional qualification in Industrial Relations, Labor Law.
- Minimum of 10-15 years in handling overall administration management including Statutory Compliance, Industrial Relations at the Project sites/Factories/Construction sites.
- Job Location : Chennai (Kanchipuram)

**Interview Date & Venue**

01 MARCH 2025  
TIME : 10.00 AM TO 3.00 PM

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<p><b>Project Management</b></p> <ul style="list-style-type: none"> <li>• Engineering Manager/ Project Manager</li> <li>• Senior Project Engineer/ Project Engineer</li> <li>• Senior Interface Engineer/ Interface Coordinator</li> </ul>	<p><b>Other Positions</b></p> <ul style="list-style-type: none"> <li>• Risk Manager</li> <li>• Senior Planning Engineer</li> <li>• Information Management Lead</li> <li>• 3D Model Manager/ Coordinator</li> <li>• Document Controller</li> <li>• Project Secretary</li> </ul>

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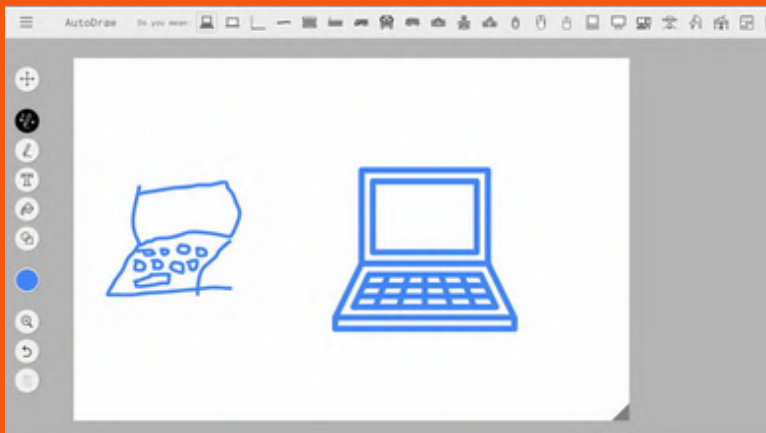
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# AUTODRAW

## REVOLUTIONIZING OIL & GAS VISUAL COMMUNICATION WITH AI-POWERED SKETCHING

The oil and gas industry is embracing artificial intelligence (AI) and digital tools to enhance efficiency and streamline communication. One such game-changing innovation is AutoDraw, an AI-powered drawing tool developed by Google that transforms rough sketches into polished illustrations. This technology is proving to be an invaluable asset in the oil and gas sector, helping engineers, field workers, and safety teams create quick, clear, and professional visuals for operational planning, safety protocols, and technical documentation.



## BRINGING AI-POWERED SKETCHING TO ENERGY OPERATIONS

AutoDraw combines machine learning with a vast database of professional drawings to convert freehand sketches into refined illustrations instantly. In the oil and gas sector, where visual clarity is essential for engineering schematics, maintenance diagrams, and safety workflows, AutoDraw is making it easier for industry professionals to create precise visuals without requiring advanced design skills.

## WHY AUTODRAW IS A GAME-CHANGER FOR OIL & GAS

AutoDraw bridges the gap between technical complexity and visual simplicity, allowing oil and gas professionals to communicate ideas faster and more effectively. The tool's user-friendly interface, AI-powered enhancements, and rapid sketching capabilities make it an essential asset for engineering teams, HSE professionals, and project managers.

With the digital transformation of the energy sector accelerating, tools like AutoDraw are redefining the way oil and gas companies create, share, and interpret critical visual information.

## KEY APPLICATIONS OF AUTODRAW IN OIL & GAS

### Rapid Pipeline and Facility Sketching

- Engineers and site planners use AutoDraw to create quick diagrams of pipelines, refineries, and offshore platforms without relying on complex CAD software.
- The tool enables field teams to sketch modifications or layouts on the go, improving real-time communication with design teams.

### Visualizing Safety Procedures and Emergency Plans

- AutoDraw helps HSE teams illustrate emergency response plans, evacuation routes, and hazard zones, making safety instructions more intuitive and accessible for workers.
- AI-enhanced visuals ensure clarity in safety training materials, reducing the risk of misinterpretation in high-risk environments.

### Streamlining Maintenance and Inspection Reports

- Field inspectors and maintenance crews use AutoDraw to illustrate damaged equipment, leak points, and required repairs in their reports.
- Instead of lengthy descriptions, clear, AI-assisted sketches enhance documentation accuracy, ensuring faster approvals for maintenance actions.

### Enhancing Training and Technical Documentation

- AutoDraw assists in creating simplified technical drawings for training modules, allowing new employees to grasp complex engineering concepts visually.
- The tool is useful in standard operating procedure (SOP) documentation, enabling teams to illustrate step-by-step processes efficiently.

### Visualizing Supply Chain and Logistics Operations

- Supply chain managers can quickly sketch transportation routes, warehouse layouts, and inventory flow diagrams, facilitating smoother logistics planning.
- AI-generated visuals help in presenting supply chain strategies to stakeholders in a clear and engaging manner.



# Optimized Design and Inspection Strategies for Injection and Mixing Points in Process Industries

Injection and mixing points are critical components in refineries, petrochemical plants, and power generation facilities. These points often experience an accelerated degradation rate compared to the main pipeline due to variations in temperature, pH, phase transitions, and the concentration of corrosive species. To mitigate unexpected failures, industry standards and best practices provide guidelines for designing, monitoring, and inspecting these areas.

Ensuring the integrity of injection and mixing locations requires meticulous attention during engineering, proper material selection, and robust operational monitoring. This includes optimizing design configurations, choosing the correct materials, determining the appropriate placement of isolation valves, and ensuring adherence to operational best practices. Additionally, effective inspection plans must be implemented to prevent deterioration and ensure continued safe operation.

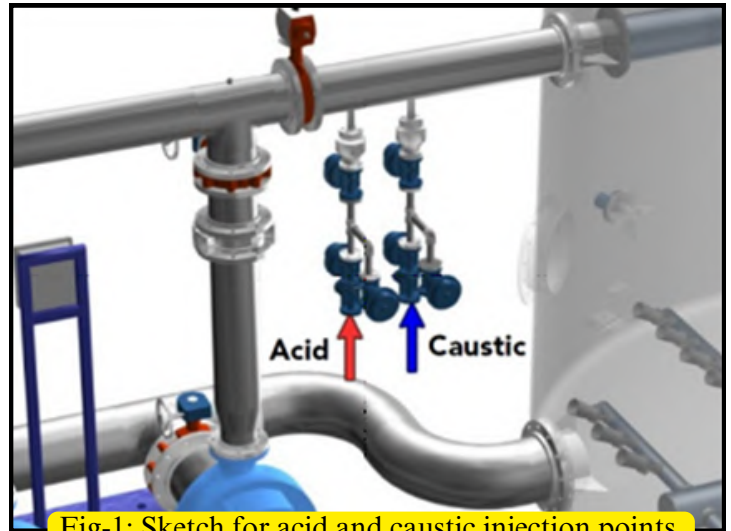


Fig-1: Sketch for acid and caustic injection points

## Definitions:

**Injection Point:** A location where chemicals or process additives are introduced into a process stream. Examples include corrosion inhibitors, desalter demulsifiers, neutralizers, antifoulants, oxygen scavengers, hydrogen scavengers, caustic solutions, and water washes. [1]

**Mixing Point:** A point where streams of differing composition and/or temperature merge. Due to potential damage mechanisms such as corrosion or erosion, these locations require special design considerations, operational limits, and process monitoring.

## Design Considerations for Injection Points

### Chemical Injection and Mixing

Injection of corrosive chemicals, such as caustic and sulfuric acid, must be carefully managed to prevent severe localized corrosion. Proper mixing and dilution of injected chemicals are essential to avoid concentrated exposure to hot metal surfaces. Injection systems should be designed to disperse chemicals effectively and prevent localized damage. [4]

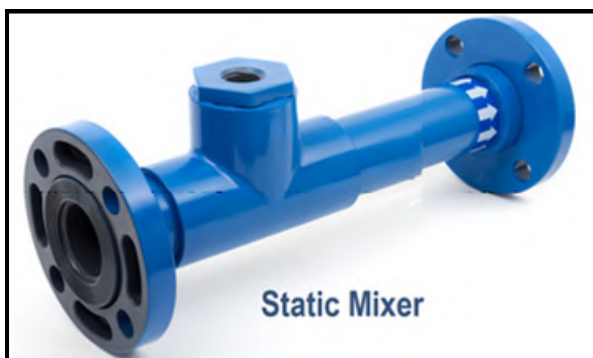


Fig-2-a: Sketch for static mixer



Fig-2-b: Sketch for injection quills

## Material Selection for Mixing Zones

Selecting materials for mixing zones requires evaluating potential risks such as local erosion, corrosion-erosion, and turbulence-induced wear. Depending on the operating environment, high corrosion-resistant alloys or internally lined injection facilities may be necessary. Plastic-lined pipes, when used, should incorporate venting systems to release any trapped annular pressure. Venting is generally unnecessary for liners made from PVDF, PP, ETFE, or PVDC. [5]

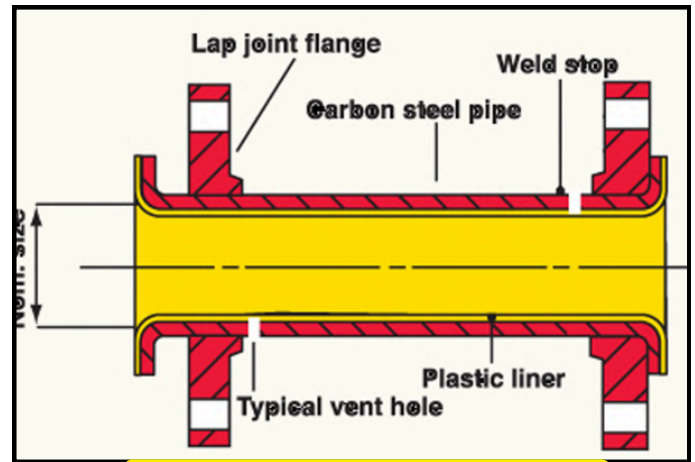


Fig-3: PTFE lined pipe spool with vent holes

## Injection Devices and Their Design Considerations

Proper selection of injection devices significantly affects mixing efficiency and operational reliability. Various devices are utilized based on process requirements:

**1**

### Quills:

- Should discharge co-currently into the center of the receiving stream to enhance dispersion and prevent undiluted chemical contact with pipe walls.
- Design calculations should assess the natural frequency to mitigate potential fatigue failure.
- Beveled-end quills improve dispersion and reduce the risk of localized corrosion or fouling.

**2**

### Spray Nozzles:

- Recommended for liquid injection into gas streams or applications requiring wall wetting.
- Co-current injection is preferred to achieve uniform distribution.
- Cross-flow injection should be avoided to prevent impingement on pressure boundaries, which can lead to premature failures.

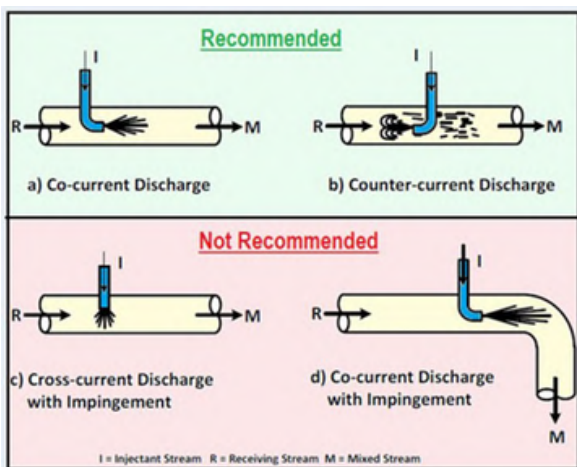


Fig-4: Injection nozzles discharge ordination

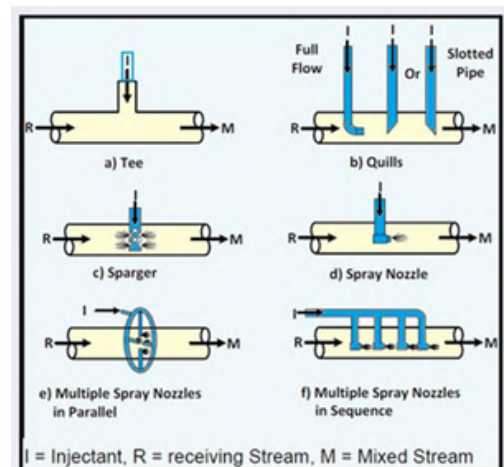


Fig-5: Injection devices



## Injection to Vessels and Tanks

When injecting chemicals into vessels or tanks, designs should avoid concentration of corrosive media in localized areas. For example, tank inlets should be positioned to promote proper mixing and dilution upon chemical introduction. Poor design can result in severe corrosion due to the formation of highly concentrated pockets of aggressive chemicals. [3]

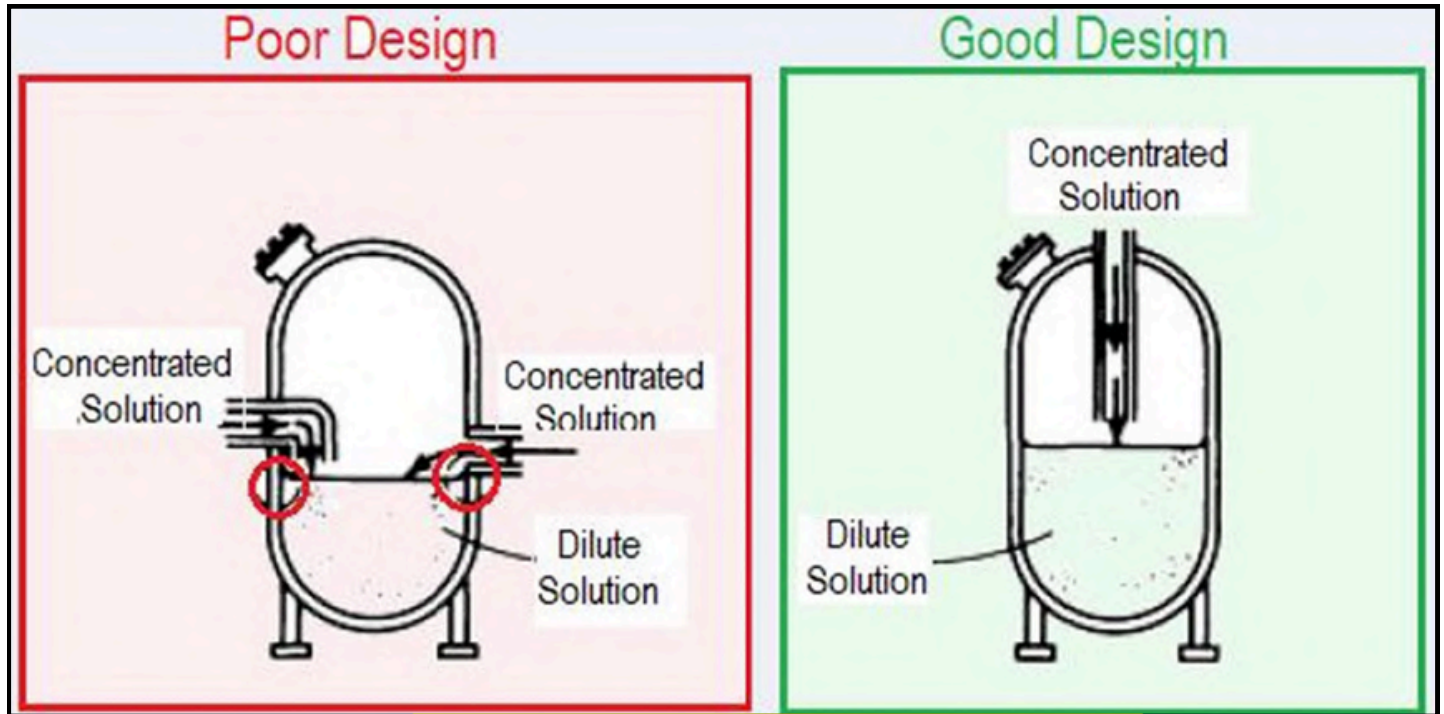


Fig-6: Poor and good practices of injection to vessels

## Managing Temperature Differentials

A significant temperature difference between the injected stream and the main process stream can lead to thermal shock and fatigue.

To minimize thermal stress, several design approaches can be implemented:

- Thermal sleeves and insulation: Reduce differential temperature effects between injection points and process streams.
- Pre-heating or cooling the injected stream: Helps align temperatures and minimize abrupt thermal expansion or contraction.
- Reduction of mechanical stiffness at junctions: Lowers stress concentrations at mixing points.

An example is an alloy nozzle intersecting a refractory-lined vessel—using a thermal sleeve with insulation minimizes the temperature gradient and associated thermal stresses. [6]

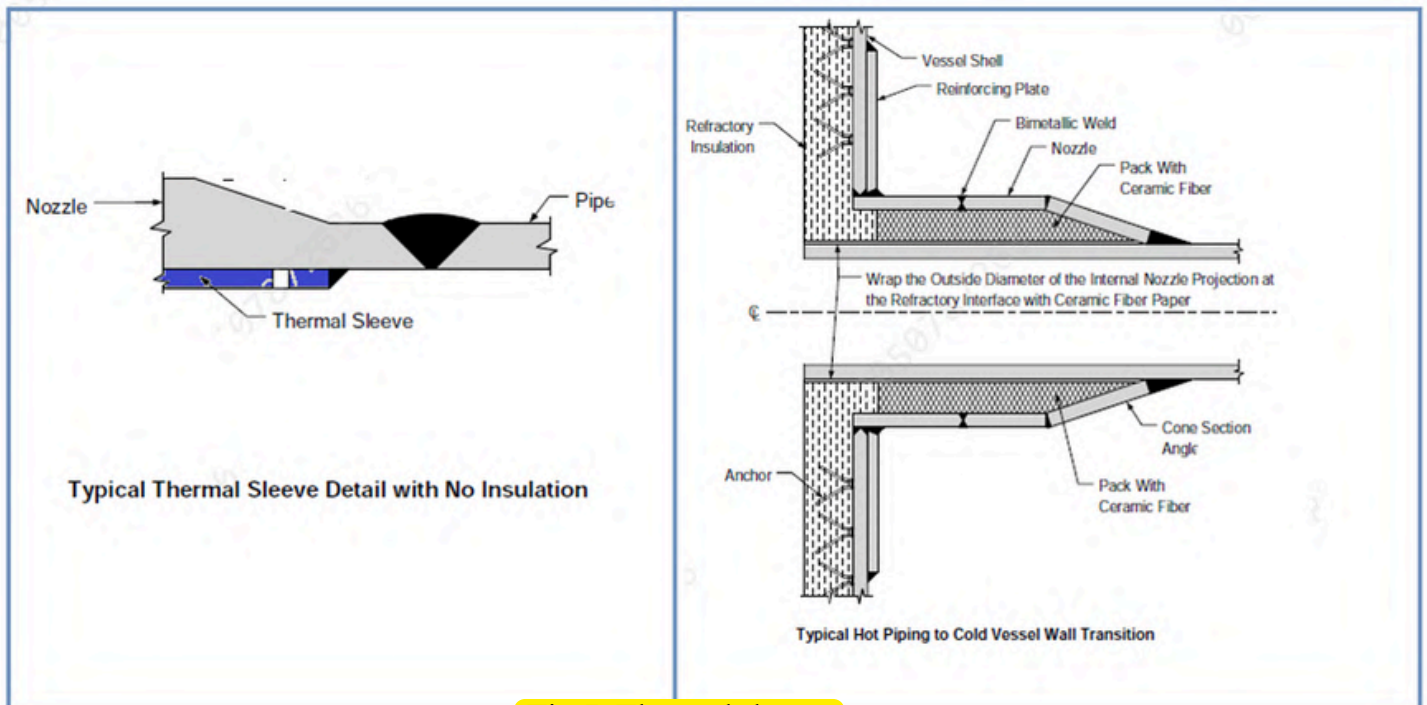


Fig-7: Thermal sleeves

## Operational Considerations

Operators must understand the risks associated with improper use of injection points. The following best practices help ensure safe operations:

- For intermittent mainstream flow, the chemical injection must be stopped before stopping the mainstream flow to prevent chemical accumulation.
- Conversely, before starting chemical injection, ensure that the mainstream is flowing.
- Implementing interlocks in the system can automate these processes and reduce operational errors.
- Operators should follow structured checklists and monitoring protocols to ensure adherence to Integrity Operating Windows (IOW) for flow rate, velocity, chemical composition, pH, temperature, and pressure.

## Inspection Strategies

Injection and mixing points are prone to accelerated corrosion and require dedicated inspection strategies:

- Treat susceptible injection points as separate inspection circuits requiring frequent assessments. [2]
- Inspections should cover an area extending 300 mm upstream of the injection nozzle and at least 10 pipe diameters downstream to capture corrosion and erosion patterns.
- Design should accommodate accessibility for inspections, such as providing platforms, manways, or removable spools.
- During shutdowns, thorough examinations of quills, nozzles, and all related components should be performed.
- For plastic-lined pipes equipped with vent holes, ensure venting remains unblocked to prevent catastrophic failures due to undetected corrosion.
- If insulated, extend the venting system beyond cladding and include leak checks in periodic inspections.



### Conclusion

Injection and mixing points play a vital role in the efficiency and safety of process industries but pose inherent risks if not properly designed, monitored, and inspected. Implementing robust design precautions, material selection, and inspection strategies significantly reduces the likelihood of failures. By following industry standards and best practices, facilities can enhance operational safety, minimize corrosion risks, and extend the life of critical process components.

### References

- [1] NACE SP0114-2014: Refinery Injection and Process Mix Points
- [2] API 570: Piping Inspection Code: In-service Inspection, Rating, Repair, and Alteration of Piping Systems
- [3] ASM Metals Handbook, Volume 13 – Corrosion
- [4] API 571, Damage Mechanisms Affecting Fixed Equipment in the Refining Industry
- [5] ASTM F1545 Standard Specification for Plastic-Lined Ferrous Metal Pipe, Fittings, and Flanges
- [6] API 579, Fitness For Service
- [7] The Many Parts of Injection Points, Marc MConnel, P.E, Inspectioneering Journal, July 2013

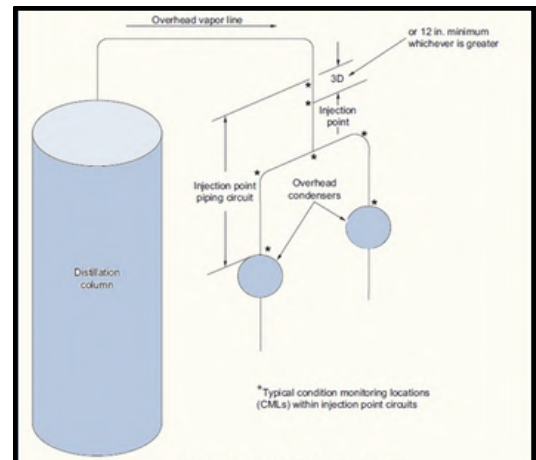


Fig-8: Typical Injection Point Piping Circuit

### About the author

## MR. BAHER ELSHEIKH

Lead Mechanical Engineer - SABIC

Over 23 years of experience in the design, troubleshooting, and fitness-for-service evaluation of pressure equipment and fired heaters. His expertise spans refinery, petrochemical, and fertilizer plants, specializing in static equipment integrity.

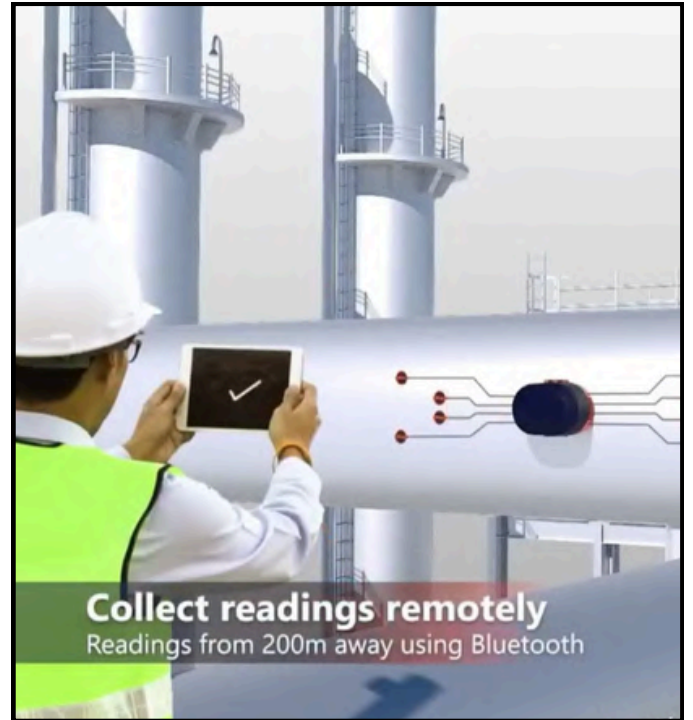
Baher is an ASME-authorized instructor and holds multiple industry-recognized certifications, including Certified RBI Professional (API 580), Damage Mechanism Professional (API 571), Certified Reliability Leader (CRL), and Certified Reliability Engineer (CRE).

He is an active contributor to international journals and conferences, publishing multiple technical papers and articles. By the end of 2024, Baher was recognized as the top-ranked industry content creator on LinkedIn in Saudi Arabia.



## Brazil Enters the Era of Sensorized Industrial Asset Monitoring

Brazil has fully embraced the era of industrial asset monitoring through Inductosense Technology. This technology measures the wall thickness of pipelines and equipment using sensors that are permanently affixed to assets. These sensors provide highly precise measurements with an accuracy of 0.05 mm, and data collection is performed quickly and effortlessly using HDC or RDC data collectors via WAND technology. Once collected, the measurements are transmitted to our iDART software, allowing for comprehensive asset monitoring and thickness loss trend analysis through graphical representations.



With iDART, users can set minimum and alert thickness thresholds, calibrate measurements based on material type, generate reports, calculate corrosion rates, and integrate data with client software. All of this is managed in the cloud, enabling access from anywhere



This technology marks a shift from traditional thickness measurement to continuous monitoring and effective asset management. Now, asset lifespan can be more accurately predicted through real-time thickness monitoring. The industry is transitioning from outdated, manual field note-based methods to digital data processing, ensuring greater accuracy and higher-quality information for decision-making.

The technology is rapidly advancing in Brazil, with deployments already in refineries and multiple offshore platforms operating in the pre-salt fields. The forecast anticipates the installation of tens of thousands of sensors in the coming years.



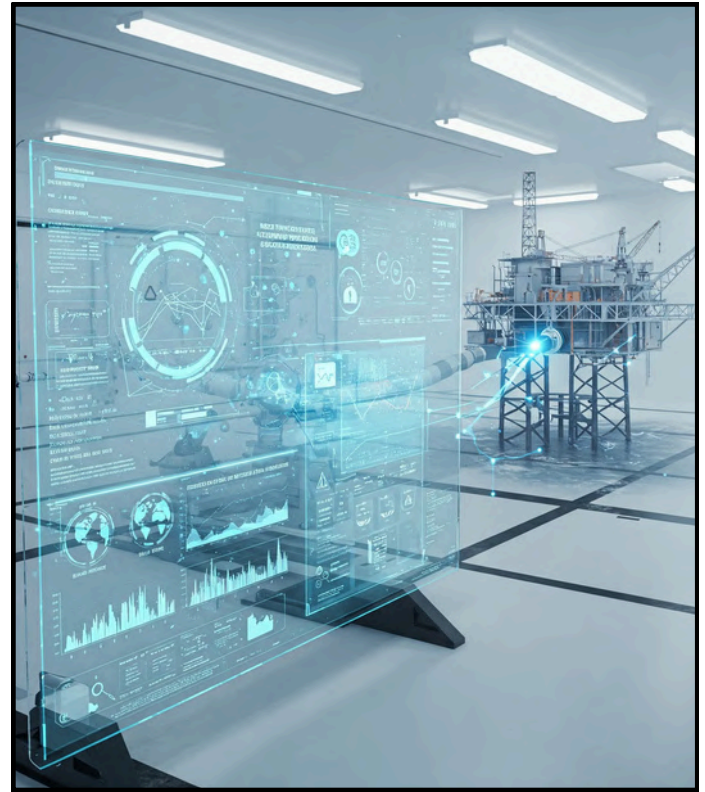
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## Key Benefits of the Technology

- ◆ **Enhanced Safety:** Significantly reduces professionals' exposure to risks such as working at heights and in confined spaces, minimizing the need for access during thickness measurements.
- ◆ **Remote Monitoring:** Enables real-time asset tracking through iDART software, ensuring no data loss.
- ◆ **Multi-Industry Application:** Suitable for all types of equipment across various industries, including refineries, offshore platforms, petrochemicals, pulp & paper factories, energy companies, chemical plants, and steel industries.
- ◆ **Cost Reduction:**
  - a. Can be installed under thermal insulation without requiring removal for thickness measurement.
  - b. Allows installation in hard-to-reach areas, minimizing the need for scaffolding or rope access for measurements.
  - c. Reduces unplanned maintenance shutdowns.
  - d. Enables installation on buried pipelines, eliminating the need for excavation to take thickness measurements.
- ◆ **Precision:** Since the sensors are permanently installed, monitoring is more accurate at the point of interest—something not achievable with traditional methods.



Tecnofink, a 100% Brazilian company, is responsible for introducing this groundbreaking technology into the country. For 31 years, Tecnofink has been dedicated to bringing innovative technologies to the Brazilian industry.

## Sustainability & Carbon Reduction

Precise equipment monitoring extends asset lifespan, reducing the need for frequent replacements and prolonging the operational life of entire units, such as exploration plants. This directly contributes to lower carbon emissions, aligning with global best practices to reduce the industrial sector's environmental footprint.



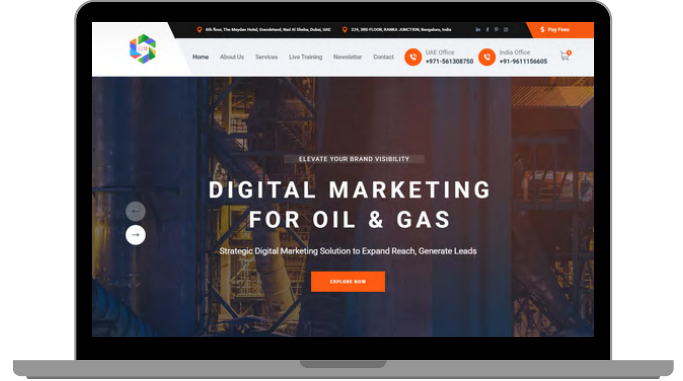
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## Excellence Integrity Management (EIM) Now Offering Digital Marketing Services for Oil & Gas Vendor Companies

As the oil & gas industry evolves, businesses are increasingly leveraging digital marketing to enhance their brand presence, attract clients, and stay competitive in a rapidly changing market. Excellence Integrity Management (EIM) is now offering specialized digital marketing services tailored for Oil & Gas Vendor Companies, helping them expand their reach, generate high-quality leads, and establish a strong online presence.



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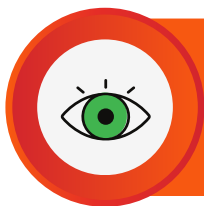
Why Digital Marketing is Essential for Oil & Gas Vendors

Traditionally, oil & gas vendor companies relied on trade shows, networking events, and referrals to secure business opportunities. However, in today's digital-first landscape, companies need a strong online presence to effectively engage with industry stakeholders, showcase expertise, and stay ahead of the competition.

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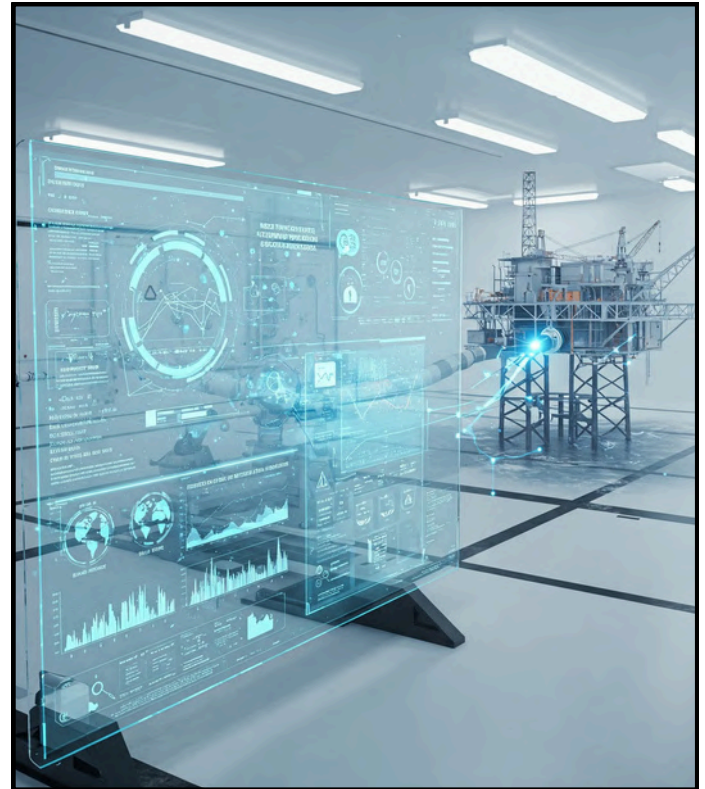
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# HOW

## TO DELEGATE LIKE A CEO

### Why Delegate



#### Improves Efficiency

Frees up your time to focus on high-priority tasks.



#### Develops Your Team

Empowers your team members by giving them responsibility.



#### Inspires Creativity

Brings different perspectives to get better solutions.



#### Balances Workloads

Prevents burnout by distributing tasks more evenly across the team.



#### Lets You Lead

Delegating allows leaders to concentrate on the big picture and top priorities.

### How to Delegate

**D**

**Define:** Clearly specify the task.

**E**

**Establish:** Communicate your expectations.

**L**

**List:** Identify and provide necessary resources.

**E**

**Empower:** Give proper authority and trust.

**G**

**Guide:** Be available to provide direction.

**A**

**Assess:** Monitor progress consistently.

**T**

**Thank:** Recognize and appreciate efforts.

**E**

**Evaluate:** Review results and make adjustments.

### What and When to Delegate

#### The 70% Rule

If someone can do a task 70% as well as you, it's worth delegating.



#### The Skill / Will Matrix

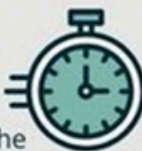
Assign tasks by matching them with skills and motivation.

(v/t Danny Meyer)



#### The Eisenhower Matrix

Divide tasks into urgent/important. Delegate task others can do, so you can focus on the most important.



#### The 80/20 Rule

Find the 20% of what you do that creates 80% of your results. Delegate the less-impactful 80%.



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