



PIPES FOR INDUSTRIAL CONSULTANCY | PIC

COMPANY PROFILE

Empowering Your Success in Composite Piping Systems:
Profitability, Reliability, and Growth

OUR VISION

"Achieving Higher Profit for Clients, in the Broadest Sense of Profitability"

Our vision is to consistently deliver higher profitability for all our clients, including manufacturers, contractors, and end-users, in the broadest sense of the term. By staying at the forefront of industry innovations and utilizing our expertise, we aim to ensure the long-term success of our clients in the competitive composite pipe industry sectors, segments, and cycles. We are committed to creating value across the entire supply chain and forging strong relationships with stakeholders to promote collaboration, innovation, and sustainable growth.

"Enhancing competitiveness levels"

"PIC clients can depend on PIC services to ensure proper execution of new designs, new processes, new products and installation"

"Securing long-term product performance reliability, business reputation, profitability and continuity in the market"



“Exceeding all expectations”

“With PIC’s experience in systems, the impact on cost makes the difference”

“Solution provider in system design and analysis”

OUR MISSION

"Empowering Clients for Success in the Composite Piping Systems Industry"

To empower our clients in the fiberglass pipes industry, including manufacturers, contractors, owners, consultants and end-users, by providing cutting-edge technical consultation, process optimization, and innovative solutions tailored to their specific, and growth needs. We strive to enhance their competitiveness, efficiency, overall profitability, and system reliability by reducing overall project costs, by elimination of rework expenses through improving manufacturing and installation practices, along with the efficiency of steps taken to achieve desired target results.

Our partnership is founded on trust, integrity, and our unwavering dedication and commitment to their long-term reputation, success, ensuring reliable and high-performing systems for both existing and new projects.



PIPES FOR INDUSTRIAL CONSULTANCY(PIC)

Established in **2013**, Pipes for Industrial Consultancy, **PIC** specializes in composite piping systems and their variable manufacturing methods. With extensive personnel expertise dating back to the late **1980s**, **PIC** has developed designs, production processes, and new products, ensuring higher levels of system reliability for industries and government bodies. **PIC** strives to raise product performance while reducing production costs by up to **50%**, driven by its vision of achieving higher profitability for its clients in the broadest sense of profitability.

أنابيب للإستشارات الصناعية (PIC)

بخبيراتها البشرية الممتدة منذ أواخر ثمانينات القرن الماضي، تأسست عام ٢٠١٣ ميلادي، كشركة إستشارية متخصصة في مجال تصميم واستشارات صناعة وتركيب أنظمة أنابيب الفايبرغلاس بطرق تصنيعها المختلفة. قامت بتطوير طرق التصميم والإنتاج (المعالجة) لمنتجات أنظمة الأنابيب وملحقاتها وأدخلت منتجات جديدة. تضمن لزيائنها تحقيق مستويات أعلى من الإعتمادية للصناعات والهيئات المستخدمة لتلك الأنظمة، وتعمل على رفع مستوى أداء المنتج وخفض تكاليف الإنتاج بشكل قد يصل أحياناً إلى **٥٠%** من خلال رؤيتها القائمة على أساس تحقيق أرباح أعلى لزيائنها بالمفهوم الأوسع للأرباح .



MESSAGE FROM THE **PRESIDENT**



Dear Valued Clients,

Welcome to Pipes for Industrial Consultancy (PIC), your trusted **partner** in the **composite piping systems** and **storage/process structures** industry. Since our establishment in 2013, we have been dedicated to providing **specialized services** throughout the entire **composite piping system's life cycle**.

At **PIC**, we are excited to **share** our **expertise** in all aspects/stages of the composite piping systems industry and composite storage/process structures with new clients around the world. We continuously deliver **high-value services** that far **exceed** most clients' **expectations, improving performance at lower costs** and **increasing reliability** for both existing and new piping systems.

With over 30 years of uninterrupted experience, our team offers expertise in products (**pipes, joints, fittings, tanks, and storage structures**) design/analysis, manufacturing processes (**CFW, HW, CC**), field services, root cause investigations, and solutions. We also engage in intensive and continuous implementation of **R&D programs**, standards development, engineering, re-engineering, and **unique know-how** build-up.



MESSAGE FROM THE **PRESIDENT**

Our **tailored services** cover existing and new piping systems, including 10's of **new products** and high pressure (HP) **applications** (some of which are **in-process patents**). These developments enable our clients to **extend** their existing served **market range**, enter **new market** segments some of which were never served before, and **surpass** the performance levels offered by **other suppliers**.

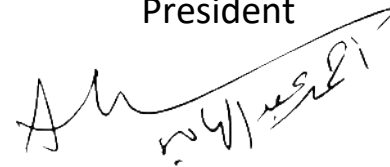
As a **commitment** to our clients, we offer a **free assessment/audit** to **identify** areas of **improvement** and create a **service package tailored** to individual needs, starting from manufacturing, engineering/re-engineering, latest developments, all the way to **enhancing reliability** and **extending** the service **life** of existing and new systems.

We are grateful for your interest in **PIC** and look forward to **collaborating** with you for a **successful future** in the composite piping systems industry **in your business**.

Warm regards,

A. ABDEL-HADI

President

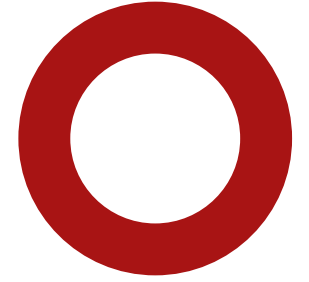


A handwritten signature in black ink, appearing to read 'A. Abdel-Hadi', with a long horizontal stroke extending to the right.

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OUR SERVICES



To achieve growth and higher **profitability** for our clients, **PIC** provides the following services:



Glass fiber Composite Piping Systems **Reliability Enhancement**

- Integrating all Factors Affecting Product Optimum Performance at Lower Costs
- Providing Latest Product Know-How for Composite Piping Systems and Storage Structures
- Providing State-of-the-Art Support for Composite Systems for Successful Implementation



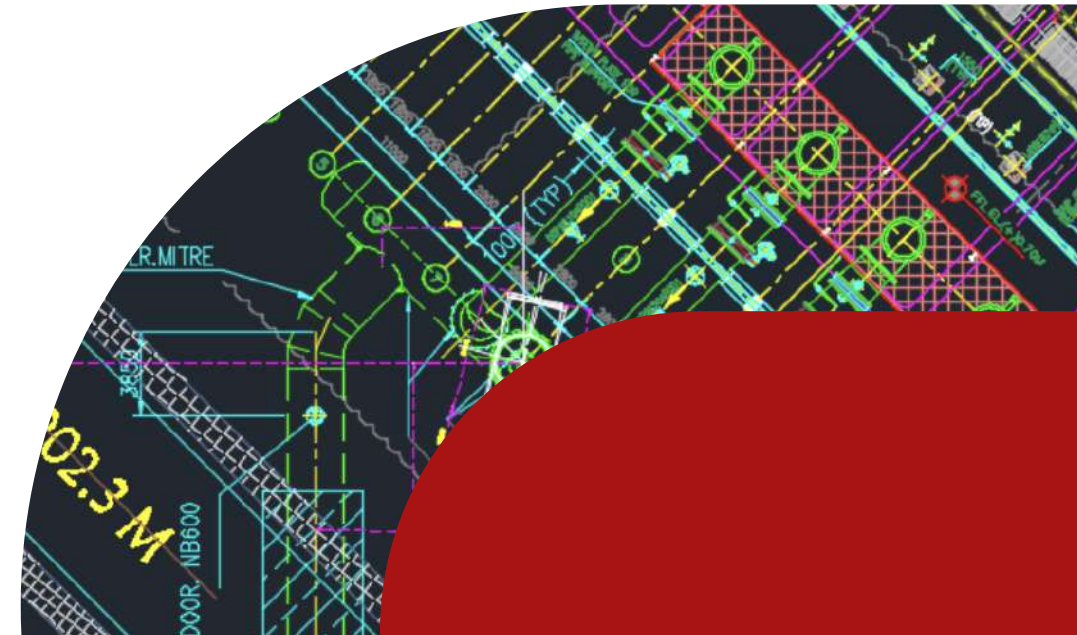
Specialized Services & Know-How for the Composite Piping Industry

- 30+ years of continuous industry experience
- R&D outcome for critical value addition
- Market size expansion and entry into new market sectors



Continuous **Critical Added Value**

- Increased product range and applications
- Served product range and size expansion
- Broader Proven Solution Options and Implementation Support



OUR SERVICES

Our value-added services cater to three main client groups in the Glass Reinforced Composites Piping Systems Industry:



Project Owners/Consultants

- Reliability enhancement.
- Expert's Engineering analysis and optimum composite piping system design.
- Re-engineering, service life assessment and extension.



Manufacturers/Suppliers

- Specialized Engineering support for higher competitiveness and fast growth.
- Enhance product performance levels through developments in designs and processes.
- Advanced Training and equipment upgrade support.



End Users/Contractors/Others

- Value-added Installation support.
- Advanced Failure/root cause analysis, repair, modification, and Service life enhancement.
- Custom-made solutions and specialized engineering support.



OUR SERVICES

PIC's Skill-Set and Service Solutions:

New solutions utilizing 3-decades of expertise on actual systems performance knowledge / Know-How (engineering analysis, failure analysis, product development...etc.) with the resulting **cost saving** and product and system **performance enhancement**:

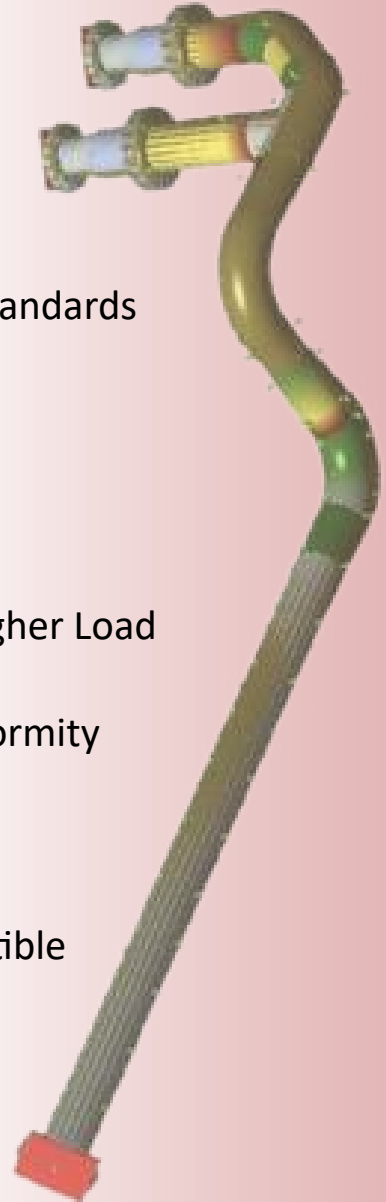
1. PIC's Integrated Bi-Axial System Design, considering manufacturing process, system performance, related int. standards requirement to total achievable cost reduction of up to **10%** of total direct system current levels costs.

System design covers the following components:

- o **Pipes:** New Processes with the resulting increase in performance than can reach 33%
- o **Flanges:** 4 Process Options / up to Doubling Production Rates / up to half Material and Labor requirements
- o **Joints and Other Fittings:** New combined designs / Lower Material Consumption / Faster Production Rates / Higher Load Capacity / Increased Design Limits / Improved Leak-Tightness / Higher Resilience Levels
- o **Total System Design and Analysis:** Integrated system design / intelligent design approach / Reliability and Conformity Achieved / Utilize experts' skills at all stages
- o **Expanded System Design Alternatives considering total target system performance levels:**
 - Optimized System Solution** Unquestionably dependable, Indisputable, and reliable design solutions
 - System Flexibility:** Reduced stresses, faster manufacturing, higher performance and shorter un-interruptible installation "elimination of potential failure / delay causes at plant and at site"



RESULT: Un-Matchable Competitiveness & Total Costs Levels

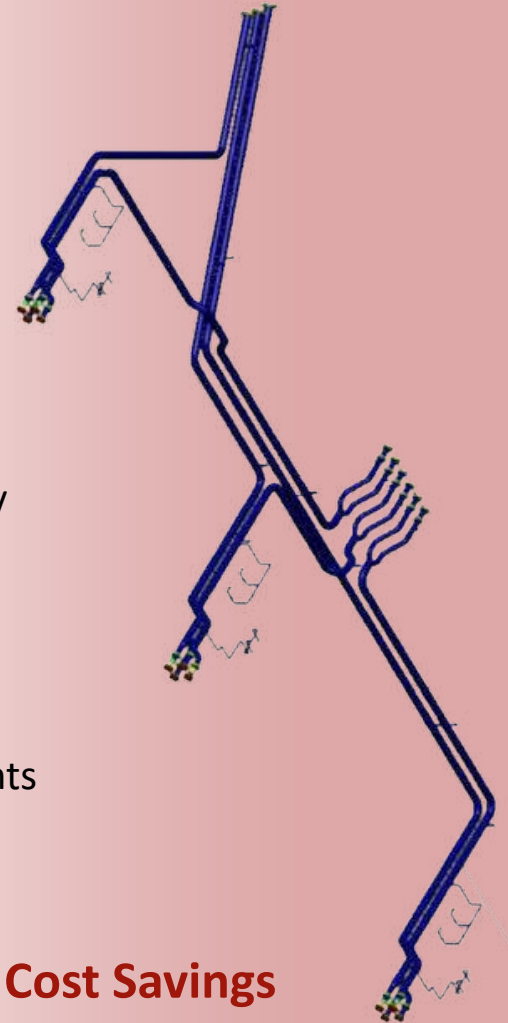


OUR SERVICES

2. PIC's Integrated Standard Pipe Design and Process: Faster Reachable Target Product Performance Level with at least total achievable 3% to 5% direct cost reduction:

- o **Pipes:** New Design Approach Integrating and controlling Process Variables Achieving the Design Criteria / Target Performance Levels Continuously and Improving Quality and Production Control Performance Indicators / Elimination of Down-Stream Process(s) / Reduced Labor Requirements / Maintain Product Uniformity and Control With Continuous Runs
- o **Joints:** New Designs with the resulting increase in performance levels and at least maintaining current historical Performance Levels, depending on joint type / Process used
- o **Flanges:** 4 Process Options / up to Doubling Production Rates / Reduced material and Labor requirements

RESULT: Continuous Raw Material, Consumables, Machinery Utilization and Labor Cost Savings





OUR SERVICES

High Pressure Epoxy HW Bi-Axial System:

- Pipes and Joints
- Threaded and adhesive joints
- Unique product performance with different types of joint systems

Double Wall Tanks:

- Standard Design
- New In-Process Patent Design
- New Applications Expanding the market size range and owner alternatives for reduced total project cost

Support Services:

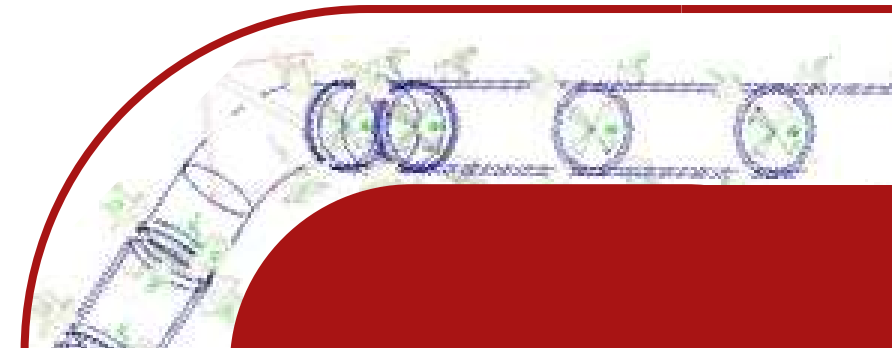
- Operational, Project Execution, Process, and Technical Support
- Machinery and tools/equipment manufacturing / purchasing consultancy
- Logistical, and Training Services
- Qualification & certification Services
- Auditing, Assessment of Conformity, Investment support for products expansion, and 3rd Party Representation

Engineering Services:

- Stress, Surge, and Finite Element Analysis
- Project Execution
- Urgent on-site support
- Periodic system inspection and evaluation services

In-Progress Patents:

- Threaded Joints
- Large Capacity Storage Structures (tanks, silos, fluid storage, industrial process structures...etc. incapacities reach or exceeds 20,000 m³), New Joints for High Pressure piping Systems
- Double Wall Tanks



OUR CLIENTS AND PROJECT PORTFOLIO



PIC WORK FOR CLIENTS

- I. PIC's New, Thinner and Shorter Lamination Factory & Filed Joints for Pipes (Cheapest in the Market)
- II. PIC's New Specific Fittings Designs and Process for Each Pipe Manufacturing Process (Cheapest in the Market)
- III. PIC's Review and Analysis for GRP and GRE Pipe Design Basis in Helical Winding Process (Covering the Products of Three Manufacturing Technologies)
- IV. PIC's New Continuous Filament Winding "CFW" Process and Pipe Performance Improvements (New Design and Process Exceeding All Other Know-How Suppliers)
- V. PIC's New Optimized "CFW" Pipe Designs & Processes for Different Applications Regardless of Winder Source
- VI. PIC's New Pipe Design (Property Prediction Model), Process Optimization & BOM Programs
- VII. PIC's New CC Process Improvements An accurate Method of Measuring the Correctness of Centrifugal Cast Process Glass Distribution Basis Used Regardless of Pipe Type
- VIII. PIC's New Flexible Coupling Joints Designs (Cheapest in the Market)



PIC WORK FOR CLIENTS

- IX.** PIC's New Material Application Devices (Optimizing Products' Performance)
- X.** PIC's GRP / GRE Consultant Actual Study Reports Related to Areas Where Solutions, Modification, Emergency Solution Cases, Re-engineering, Re-Use, Areas Where Deficiency in Designs, Over-Designs, Simpler Cost-effective Designs and Design Alternatives, Detailed Design and Pipeline Investment/Operating/Life Cycle Cost Sensitivity Study, and Many Other Critical and High Value-Added Results from Both Time and Cost Perspectives
- XI.** PIC's Tools for Product Design and Process Control Examples: Optimum Design Thickness, Actual Product Thickness, Composition Control, Elimination of Down-Stream Process...etc.
- XII.** PIC's New Uni-Axial and Bi-Axial Fittings (Tee, Elbow, and Joint) Designs Based on Joining Material Used
- XIII.** PIC's Engineering Analysis Services (Stress Analysis of Complete Plant, Product Performance, Product Behaviors Prediction, Prediction of Individual Layer Behavior and Failure Criteria)
- XIV.** PIC's Other Services Examples: include Creating and implementing Cost Reduction & Product Development Programs in non-Composite Pipe Manufacturing Facility and Designing and Implementing Complete Plant Processes Optimizations



OUR EXPERTISE AND **KEY BENEFITS**

Experience the advantages of comprehensive industry knowledge and expertise in the composite piping industry, tailored to benefit your business:

1

Harness Comprehensive Industry Knowledge for Your Success

- Leverage over 30 years of continuous experience in composite piping systems innovations.
- Enhance your operation with proper understanding of any of the three manufacturing processes through the use of accurate process translation of engineering designs into finished integrated piping system components.
- Keep abreast of the latest industry trends and technological advancements for a competitive edge.

2

Customized Innovative Solutions for Your Business

- Access new products, systems and applications, including in-process patents, to stay ahead of the competition.
- Expand your market presence and venture into untapped sectors.
- Enjoy bespoke solutions designed to meet your unique requirements.



EMPOWERING CLIENTS WITH INDUSTRY EXPERTISE AND BENEFITS

3

Elevate Profitability and Reduce Costs for Your Business

- Optimize performance and cost savings through the integration of design, process, raw material, and machinery factors.
- Experience continuous critical added value for increased profitability.
- Secure long-term market presence, success and expansion of your business.

4

Benefit from a Client-Centric Approach

- Obtain dedicated services tailored to the needs of project owners, consultants, manufacturers, suppliers, end users and contractors.
- Emphasize reliability, engineering support, and service life enhancement for sustained growth.
- Exceed expectations and achieve exceptional results with an unwavering commitment to your success.

Leverage industry expertise and commitment to excellence to unlock unparalleled benefits and added value for your business in the composite piping industry.





EMBARK ON A **SUCCESSFUL** JOURNEY WITH **PIC**


Are you ready to experience the benefits of partnering with a specialized consultancy in the composite piping industry? Don't miss the opportunity to enhance your project's profitability, reliability, and performance with the expertise of Pipes for Industrial Consultancy (**PIC**).

COMPLIMENTARY **ASSESSMENT/AUDIT**

As a first step, we offer a free comprehensive assessment/audit of your company's composite piping systems, manufacturing processes, and overall performance. This audit will provide you with a report outlining the areas for improvement and optimization, allowing you to better explore your needs and make an informed decision about utilizing our services.



To get started or learn more about our comprehensive services and unique solutions, please contact us at:

 00962 (79) 851 7049

 info@pic-grp.com

We look forward to discussing your needs and collaborating on your next project. Let PIC be your trusted partner in the composite piping industry, driving your success and growth for years to come.

Visit our website



www.pic-grp.com