



AG&P Engineering

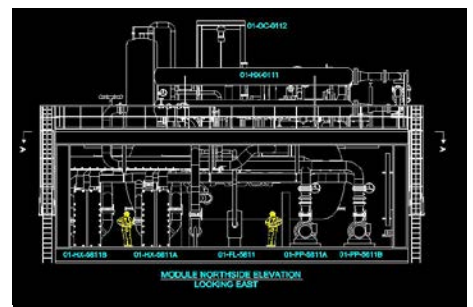
AG&P Engineering in Houston, USA is the global headquarters for the company's proprietary, innovative solutions for in-house as well as third-party LNG projects. A second engineering team in Busan, South Korea [GAS Entec] provides conceptual and detailed engineering for floating LNG infrastructure. The Houston and Busan teams are seamlessly supported by a highly experienced team in Manila offering detailed and construction engineering solutions.

AG&P's teams of senior engineers are dedicated to developing solutions for onshore and offshore LNG and industrial infrastructure that lower costs and accelerate schedules. The technical, commercial and engineering experts work together and serve as a single interface for integrated project delivery to blue-chip clients globally.

With commercial offices around the world, AG&P Engineering is ideally positioned to support the worldwide expansion of the LNG industry with its innovative, technologically advanced solutions.

AG&P Engineering evaluates the feasibility, viability, ownership and operation of LNG infrastructure solutions. Its services include:

- Import terminals and regasification: pragmatic LNG import terminal infrastructure to meet demand from customers seeking to switch to LNG as a fuel source. AG&P links LNG suppliers with end-users by developing innovative and cost-efficient supply chain infrastructure and distribution networks
- Liquefaction and LNG export terminals: standardized and scalable engineering designs for LNG export terminal infrastructure. Project costs are substantially reduced by having an in-house engineering team as this eliminates bespoke third-party engineering
- Owner's engineering and consultancy: AG&P Engineering has deep relationships with the world's leading technology providers, equipment suppliers and classification societies
- Plant operations and support: AG&P has hands-on experience in project management and operations in the oil and gas, LNG import and export, refining, petrochemical and power generation industries, complementing AG&P's deep heritage in modularization and onsite construction



AG&P Engineering develops proprietary designs for onshore and offshore LNG infrastructure projects around the world



AG&P's engineering teams in Houston, Manila and Busan [GAS Entec] work together to deliver innovative designs for floating LNG infrastructure



Engineering and Project Management Services

Drawing on the expertise of its global team, AG&P Engineering offers a wide range of engineering and project management services:

GENERAL ENGINEERING	
<ul style="list-style-type: none">• Conceptual and feasibility studies• Technology evaluation, comparison and selection• Design basis, specifications and standard drawings• Material requisitions	<ul style="list-style-type: none">• Technical bid evaluations• Vendor document review• Fabrication and field engineering support and construction assistance
PROCESS ENGINEERING	
<ul style="list-style-type: none">• Simulation/heat and material balances• Process and utility flow and piping and instrumentation diagrams• Cause and effect diagrams• Line sizing and hydraulic calculations	<ul style="list-style-type: none">• Process equipment specifications and sizing calculations• PSV sizing and selection• Process datasheets
PIPING ENGINEERING	
<ul style="list-style-type: none">• Pipe wall thickness calculations per ASME• Piping material specifications and valve datasheets• Piping bulk MTO• Specifications for special piping components, special pipe supports, spring hangers	<ul style="list-style-type: none">• 3D modeling• Plant/piping layouts and isometrics extraction from 3D models• Pipe stress analysis
ELECTRICAL ENGINEERING	
<ul style="list-style-type: none">• Datasheets for electrical items• Electrical network studies• Electrical bulk MTO• Single line diagrams	<ul style="list-style-type: none">• Electrical layouts (lighting/cable routing/earthing)• Schematics and wiring/interconnection wiring diagrams• 3D modeling
MECHANICAL ENGINEERING	
<ul style="list-style-type: none">• Datasheets for static and rotating equipment and packages• Static equipment design verification• Vessel/support cleat design	<ul style="list-style-type: none">• Vessel mounted platform details• Mechanical specifications
INSTRUMENTATION AND CONTROL ENGINEERING	
<ul style="list-style-type: none">• Datasheets for instruments and controls• Instrumentation and control bulk MTO• Specification for field and online instruments	<ul style="list-style-type: none">• DCS, PLC, ESD engineering• Cable tray layouts• 3D modeling of instrument, junction box, cable trays
CIVIL AND STRUCTURAL ENGINEERING	
<ul style="list-style-type: none">• Structural design• Weight control reports for modules• Structural GA drawings• Civil and structural MTO	<ul style="list-style-type: none">• Structural fabrication drawings and connection details• Foundation design and reaction forces on foundations• Lifting, transportation and in-place analysis reports• 3D modeling

For more information, visit www.agp.ph

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