

Technical Drafting and Documentation Services P&ID's Site Plans Area Classification Asset Identification





Marking Services Incorporated

P&ID's

Area Classification

Site Plans

Asset Identification





Accurate facility drawings are the foundation for asset management and safe operations.

MSI's Technical Drafting Services division focuses on the development of accurate as-built P&ID's and validation services for any industry.

Marking Services Incorporated has been the premier provider in the petrochemical technical drafting industry for over twenty years. MSI provides as-built Piping and Instrumentation Diagrams, process flow diagrams, site plans and area classification plans for midstream oil & gas processing facilities in addition to mechanical identification materials and turnkey labeling services. From liquids storage and handling facilities to natural gas processing plants, MSI is a single source of responsibility for each phase of technical drafting and labeling/identification.



P&ID's

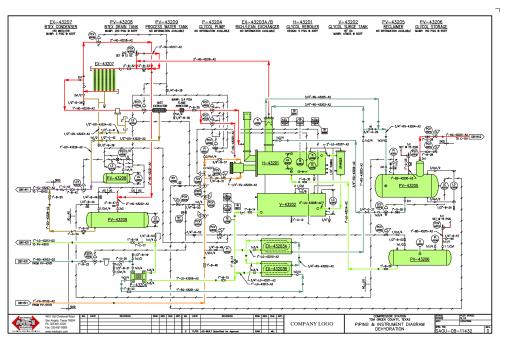
Area Classification

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MSI Technical Drafting Services specialize in creating and updating Piping and Instrumentation Diagrams for any process. P&IDs created by MSI are much more than drawings, they are tools that illustrate your process in detail and also provide valuable information on equipment, valves, lines and instruments. When drawings have been completed, the information is extracted into a



database and reports are generated. These reports provide a head start on Process Safety Management or Risk Management Programs. If your process changes or is expanded, new drawings can be generated and a new database can easily be extracted to help with Management Of Change. The data is useful for maintenance, operations, and asset management.

P&IDs will be created utilizing your existing conventions and specifications or we can create specifications that meet your needs. Our P&IDs are created with commodity color-coding making them easy to follow and understand, allowing your risk assessment or HAZOP team to move quickly through your facility. We offer P&ID validation in which our field engineering personnel physically trace every line and verify every component in scope to ensure accuracy.

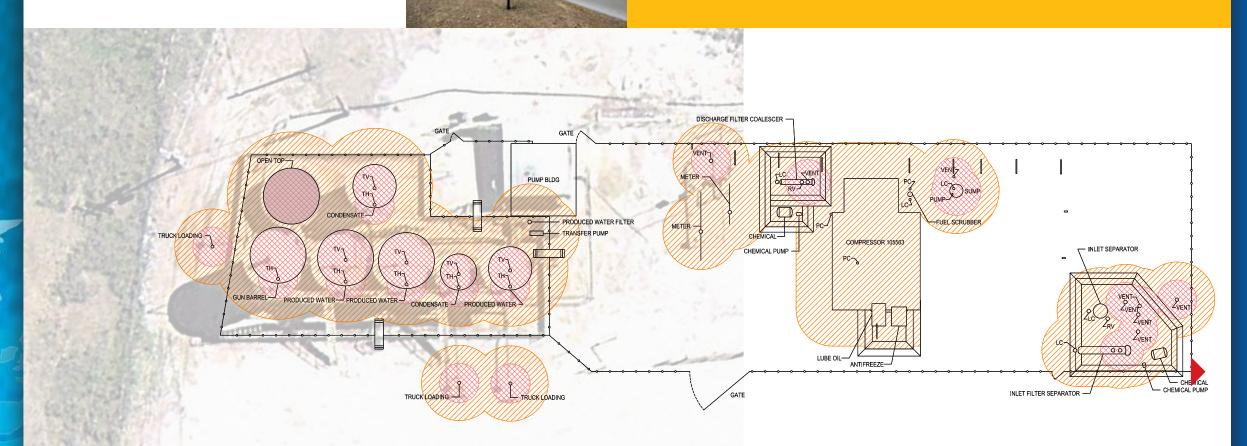
P&ID's

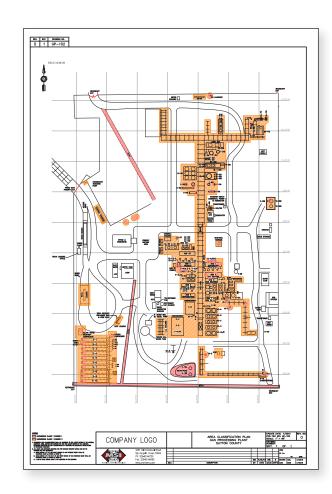
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Area Class Drawings





Hazardous Area Classification

MSI area classification drawings analyze and classify the environment where explosive gas atmospheres may occur so as to facilitate the proper selection and installation of equipment to be used safely in that environment. This process allows for preparation of safety procedures for plant operation and maintenance while reducing the overall installation risk level. MSI develops area classification plans in accordance with, but not limited to the American Petroleum Institute's Recommended Practice 500 requirements.

Applications

Oil & gas production and processing plants

Offshore platforms and FPSO (Floating Production Storage

Offloading vessels)

Oil & gas tankers and drilling ships

Oil refineries

Petrochemical and chemical processing plants

Gas pipelines and distribution centers

Re-fueling stations

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SV-107 STORAGE - PV-108 0.0.S. 0.0.S. BU-100 TRUCK LOADING -CM-106 RECOMPRESOR COMPRESSOR BLDG. BLDG. PM-101 -SUMP - \oplus \oplus \oplus CM-100 $\oplus \oplus \oplus$ PV-121 FIRE BLDG. CM-101 CLYCOL CONTROL ROOM EX-101 SV-108___ CM-102 EX-102 - EX-100 PV-102 -PV-118 CRYOGENIC PV-103 PV-119 SKID SV-104 PV-104 SV-105 PV-105 CM-103 · - SV-106 PV-100 PV-101 102 ASPONING ASSESSED TO MUSTER AREA HUSTER AREA APPROXIMATELY 209 YARDS **Emergency Evacuation Route Plans** an essential guiding tool for occupants as

site plans

A Site Plan is a scaled drawing that provides unique information such as land features, process/utilities, equipment, and structural placement. This information is critical for new construction and facility retrofit projects. The MSI technical drafting team is equipped with the best knowledge, experience and tools to deliver accurate and reliable site plans to any midstream oil & gas facility.

MSI can enhance any site plan by adding evacuation routes, emergency equipment locations, and fire safety plans. These detailed drawings display written and graphic safety instructions that are tailored to your facility and fire ordinance requirements, providing added value to all personnel new to the site or unfamiliar with the facility.

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Value

an essential guiding tool for occupants as well as outside emergency responders during an emergency.

asset identification





Custom Pipe Markers, Signs and Tags

Custom Pipe Markers

MS-995 pipe markers are manufactured for extended life in harsh surroundings such as process chemical plants and marine/offshore environments. Each pipe marker is constructed from printed polyester with an exterior surface of MS-1000 to withstand exposure to direct sunlight, salt water, harsh process chemicals, acids, caustics and hydrocarbons. MS-995 pipe markers can withstand temperatures up to 250°F (121°C). This superior durability allows MSI to guarantee them to last a minimum of five years or we will replace them at no charge.

Turnkey Mechanical Identification with pertinent P&ID information

The combination of our mechanical identification and technical drafting services makes MSI a single source of responsibility for the most critical aspects of any process safety management and risk management program. Our ability to integrate our mechanical identification products on piping and components coinciding with facility P&ID's means that HAZOP personnel can quickly and easily identify process issues prior to emergency response mobilization. By utilizing our integrated approach, the combination of products and services provides great value and many benefits to risk assessment teams, new and existing maintenance personnel, and contractors.

Walk Down and Updating Services — MSI can field verify, validate and update existing facility P&ID's to as built status.

Signs

MS-215 equipment signs can be either rigid for mechanical attachment or flexible for mounting to curved surfaces with a permanent adhesive.

Lease Holder Signage
Perimeter Signage

Site Specific Hazard Signage

Valve & Instruments ID

Tags

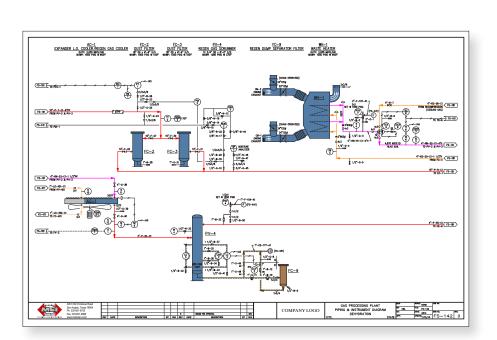
MS-215 valve, instrument, and equipment tags are constructed with layers of chemical and UV resistant plastic which protect the printing and ensure long life in harsh plant conditions. MS-215 tags may also be bar-coded and allow for systems color-coding. Depending on the application, tags are then installed with a variety of stainless steel fasteners.

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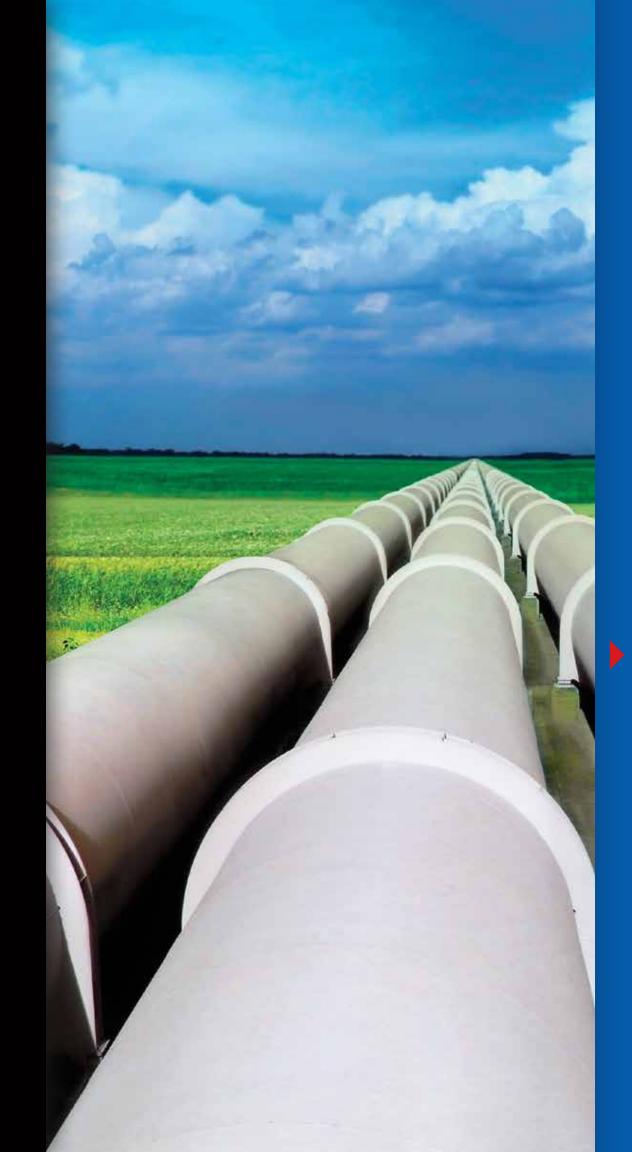
Value

At MSI, we don't simply create markers, signs and tags.

We enhance the overall safety and efficiency of your facility.

From developing accurate P&IDs and technical drawings to the manufacture and installation of clear, durable markers and tags that effectively communicate valuable information to all who need it.

MSI offers you a single, seamless source to help you better manage your oil and gas facility. That's partnership. That's MSI.



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Marking Services Incorporated

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