
Advanced Sys-tek Ltd

Company Profile

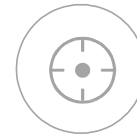
Content Overview



ABOUT US



JOURNEY



VISION & VALUES



WHAT WE DO



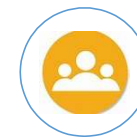
PRODUCT PORTFOLIO



CAPABILITIES



KEY PROJECTS



CUSTOMERS



**CREDENTIALS/
VOICE OF
CUSTOMERS**

About Us

- Pioneers & Market Leaders in the field of Instrumentation Automation, Terminal Automation and Metering systems in India, with 300+ Installations
- Well established Quality System with an ISO 9001:2015 Certification and Safety System with ISO 45001:2018 Certification
- Scalable Infrastructure with 153,000 sq. ft. facility, 5000 sq. ft built up fabrication space, 3000 sq. ft. Diesel Exhaust Fluid Manufacturing Plant and 40,000 sq. ft. Office Space
- Over 35 years of experience in providing Solutions & Systems which include Design, Engineering, Procurement, Project Execution, Software Development, Commissioning and after-sales support.
- Leadership Team with 300 cumulative Years of Industry Experience
- Global Distributors Representing AST in Key Countries in LA, MEA and SEA



Our Journey

1988

Advanced Spectra Tek Pvt. Ltd. Was Started by Promotors (60%) & Spectra Tek UK (40%)

1996

Daniel Measurement & Control Inc, USA acquires Spectra Tek UK

1999

Advanced Spectra Tek Pvt Ltd becomes Daniel Measurement & Control India Pvt Ltd

1999

Emerson Electric Co USA acquires Daniel Measurement & Control Inc, USA

2007

Emerson Acquires Metering Business from Daniel Measurement & Control India Pvt Ltd

2012

General Electric acquires controlling stake in Advanced Sys-tek Pvt Ltd

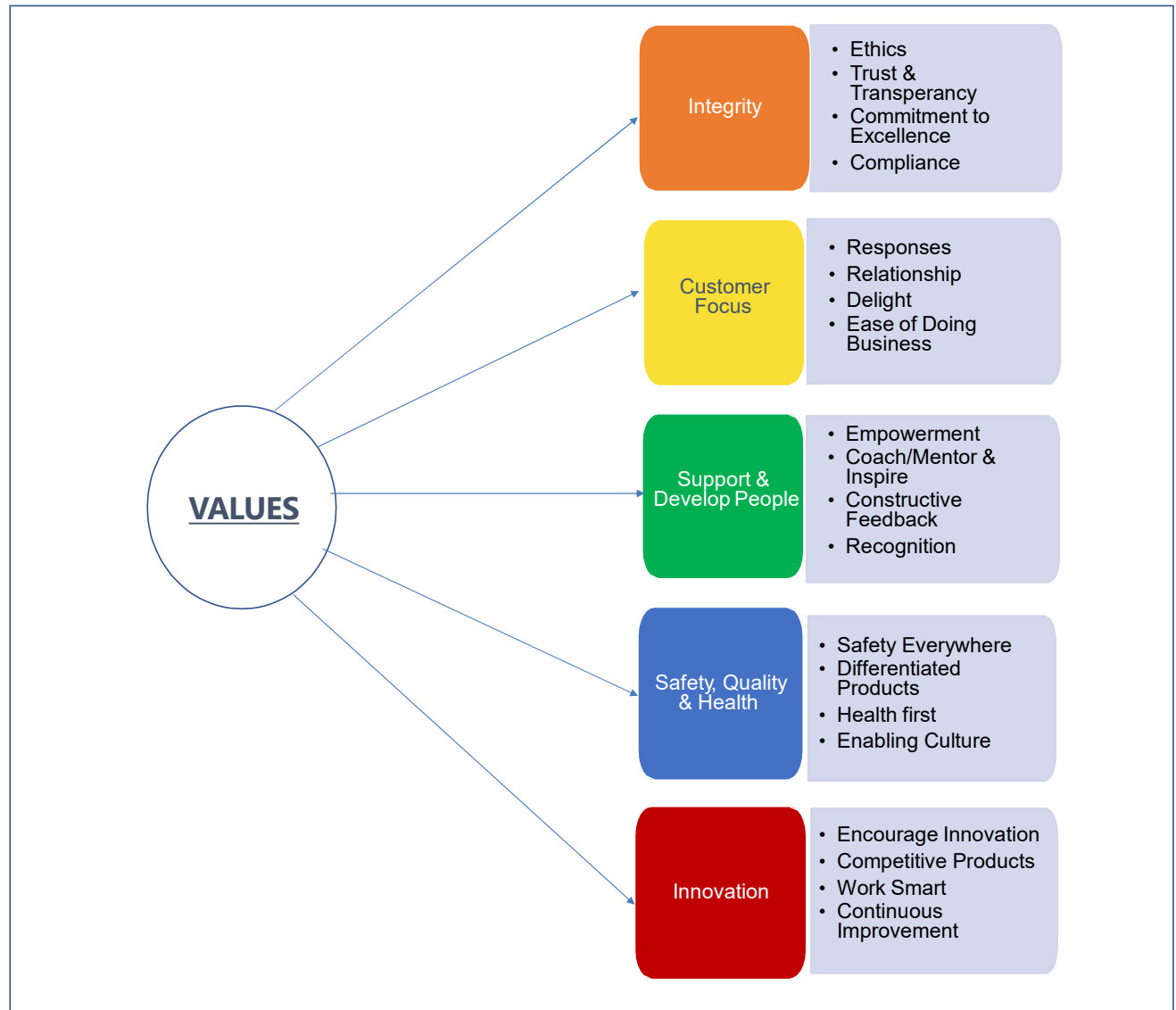
2018

Promotors buy back General Electric's stake and is now wholly owned by the Promotors

Our Vision & Values

VISION

To be the most preferred partner for Products, Engineered solutions and Services in diverse industrial sectors in India and the Global market.



What We Do



LARGE INSTRUMENTATION PACKAGES WITH SCADA

Process Automation and control systems with SCADA for refineries, ports, terminals



TERMINAL AUTOMATION

Automation of truck and wagon loading terminals



LIQUID & GAS METERING AND PROVING SKIDS

Skids for filtration, pressure reduction and metering.



SKIDS FOR MOBILE DISPENSING UNIT

Accurate Dispensing of Fuels with Additives at Retail Outlets



DIESEL EXHAUST FLUID

Plant and solutions for manufacturing DEF, DEF Sale



SOFTWARE SERVICES & PRODUCTS

Full range of Software Services & Products



DEFENCE

Injection skids for chemicals, additives and dyes, Force Multipliers for Armed Forces



SERVICES

Operation, Maintenance and Training support & Services

Group Companies



Our Group

AST Environment Solutions Pvt Ltd



- 100% subsidiary of the Company.
- Manufacturing of Diesel Exhaust Fluid (DEF) AdBlue®
- DEF consumption directly proportional to diesel consumption of vehicles compliant with Euro 4, 6 and Bharat Stage VI compliant Engines
- Capacity - 16MT per day

Terranomous Systems Pvt Ltd



- Joint Venture Company.
- Development & Manufacturing of AI based Unmanned Ground Vehicles for diverse applications such as under ground mine operations, surveillance, surveying, robotic arm, material handling equipment, land mine detection
- Prototype of the Product expected to be ready by March 2025

Large Instrumentation Packages and SCADA Systems

REFINERIES



LPG BOTTLING PLANTS



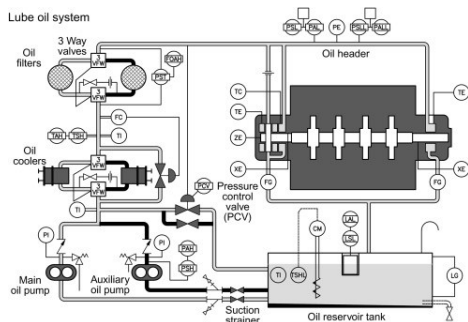
PORTS



SCADA



LUBE PLANTS



LPG STORAGE TERMINALS



OIL STORAGE TERMINALS



Large Instrumentation Packages

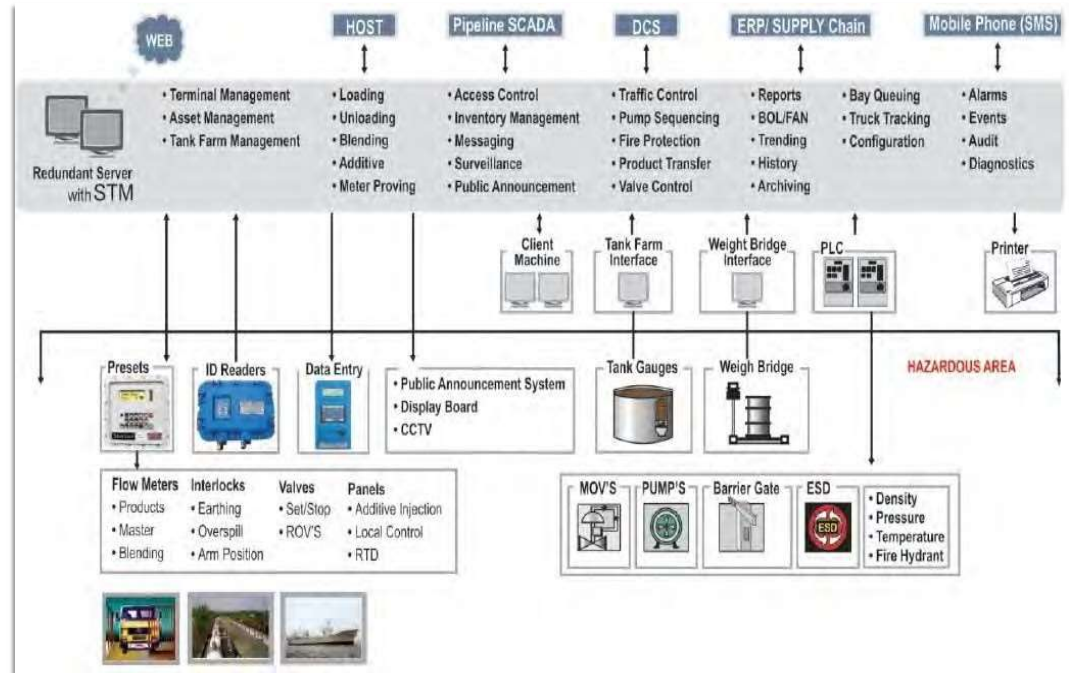
- Complete Design, Engineering, manufacture, Supply, installation commissioning and post warranty services under one roof.
- Customized automation system design for storage terminals, barge loading facilities, LPG & LNG handling facilities, port terminals, fuel farms, factory processes, chemical plant processes, DEF AdBlue® manufacturing plants, brewery plant processes, lube plants etc.
- SCADA Systems Design, Development and Implementation for diverse applications
- Complete ownership of hardware and software required for such type of automation systems.

Real Time Interfaces

- DCS
- PLC
- Safety Systems
- Level
- Flow Measurement and Control
- Blending
- Additive Injection
- Temperature
- Pressure Measurement and Control
- Tank Gauging / Inventory Management
- Fire & Gas Detection
- Hydrocarbon Detectors
- CCTV Surveillance Systems
- Access Control Systems

Terminal Automation Systems

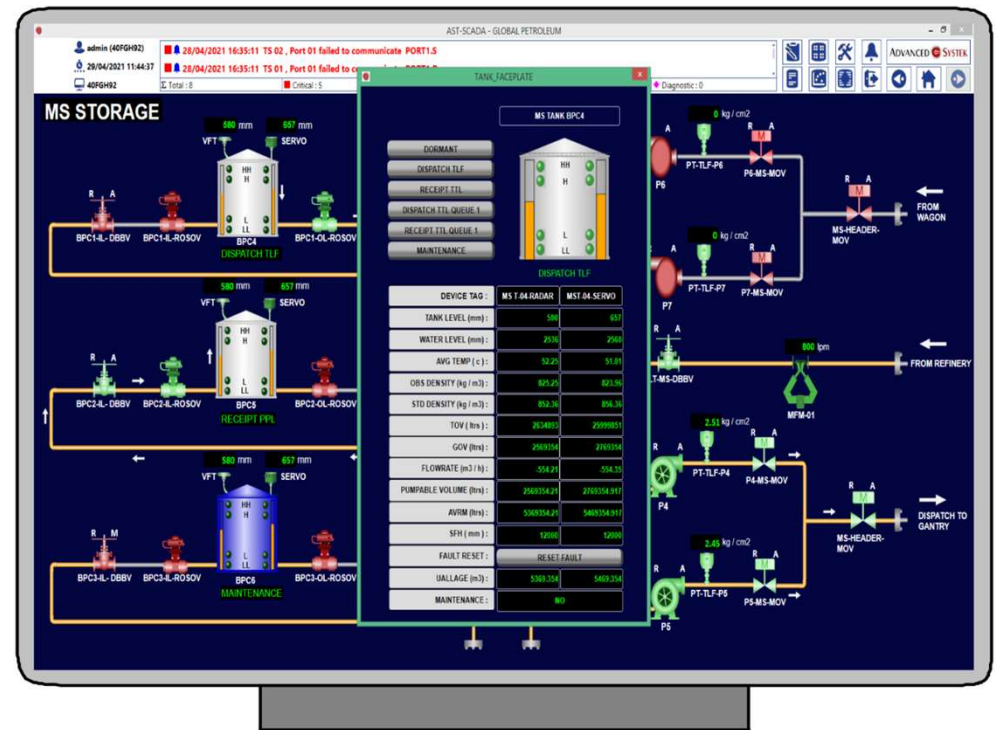
- Complete Design, Engineering, manufacture, Supply, installation commissioning and post warranty services for terminal automation systems under one roof.
- Systems designed for Truck loading terminals, barge loading facilities, LPG handling facilities, port terminal automation etc.
- Complete ownership of hardware and software required for such type of automation systems
- Smart Terminal Manager (STM) – Proven Terminal Management System with more than 200+ installations



Terminal Management System

SMART TERMINAL MANAGER

- Facilitates and streamlines Terminal operation
- It supports key activities such as loading and unloading tank trucks and rail wagons, as well as managing product transfers through pipelines, all while enabling centralized monitoring for enhanced efficiency
- AST also specializes in upgrading / replacing the TAS software using existing field Instruments with minimum down time.



STM – Salient Features

200+ Successful
installations

Cyber Security Certified

High System Availability

High Scalability and
Expandability

User Friendly Interface

Customizable

Integration with various
ERP System

Role Based Access

Advanced Alarm
Management

Real-time & Historical
Trend Monitoring

Extensive Operator
Actions and Events

Comprehensive Data
Logging & Reporting

Interfaces with different
Field devices and sub-
systems

Data accumulation and
Analytics

STM – Major Modules



Customer SAP
Interface,
Planning
And
TT Scheduler



Access Control
and CCTV
Surveillance



Loading and
Unloading
operations



Inventory
Management
System



Pipeline
Receipt/
Dispatch System



Safety
Instrument
System
(Safety PLC, ESD)



Process
Instrument
System
(DCS, Process
PLC, VFD)



Billing and
Invoicing

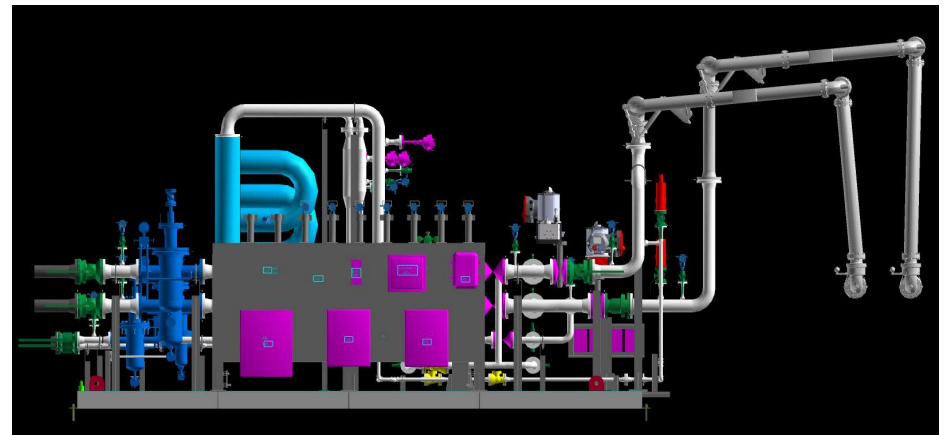
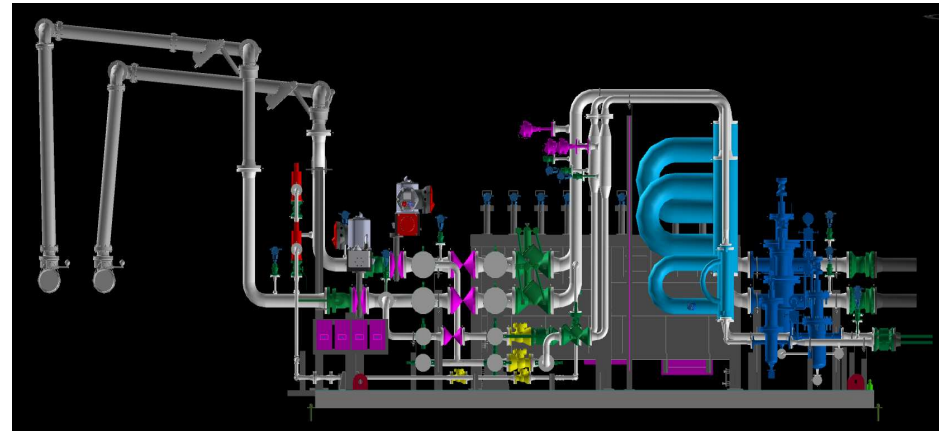
Liquid/Gas Metering & Proving Systems

- Metering Systems are used for fiscal Custody Transfer of Hydrocarbons
- Liquid and Gas Metering systems are skid mounted Flow measurement and computational devices that accurately meter the product that flows through.
- We design, engineer, manufacture, supply, install, commission, validate and provide after sales support for metering skids as per the latest and relevant liquid and Gas measurement standards (API, AGA, ISO etc).



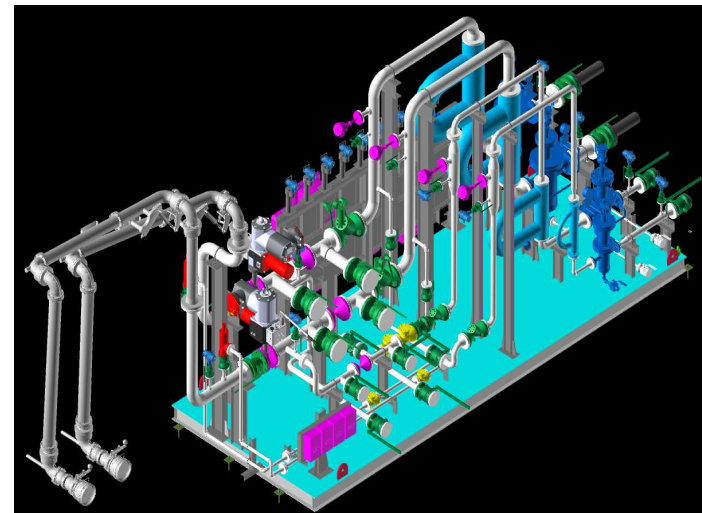
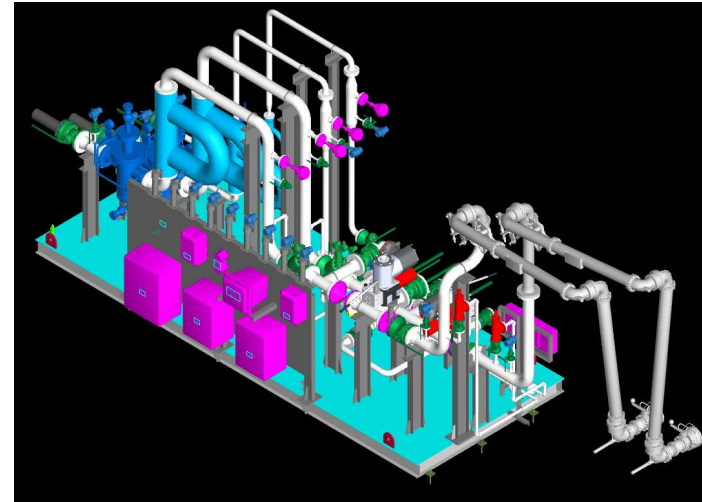
Our Metering Systems Experience

- Service: Gasoline, Ethanol and Diesel
- Configuration: 3 x 100%
- Flow Element: Coriolis Meters
- Application: Tank Truck Loading
- Size: 2 x 4-inch plus 1 x 2-inch
- Custody Transfer Weights & Measure Sealed
- Scope: Design, Engineering, Manufacturing, Supply, commissioning, validate and provide after sales support



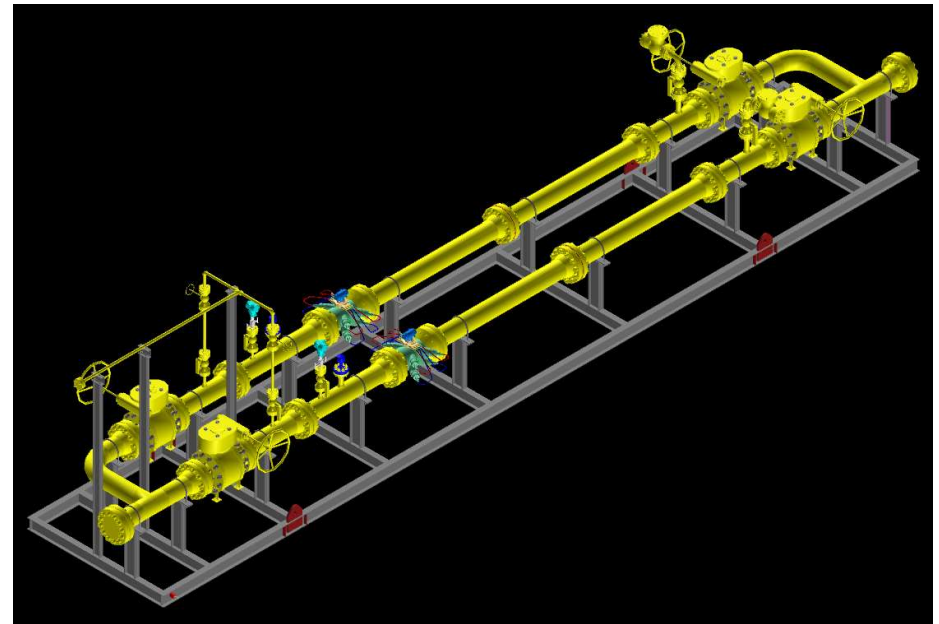
Our Metering Systems Experience

- Service: Gasoline, Ethanol and ATF
- Configuration: 3 x 100%
- Flow Element: Coriolis Meters
- Application: Tank Truck Loading
- Size: 2 x 4-inch plus 1 x 2-inch
- Custody Transfer Weights & Measure Sealed
- Scope: Design, Engineering, Manufacturing, Supply, commissioning, validate and provide after sales support



Our Metering Systems Experience

- Service: Natural Gas
- Configuration: 2 x 100%
- Flow Element: Ultrasonic Meters
- Application: Fiscal Metering Skid
- Size: 2 x 8-inch #600
- Custody Transfer
- Scope: Design, Engineering, Manufacturing, Supply, commissioning, validate and provide after sales support



Skids for Mobile Dispensing Units

- Used in unloading Tank trucks in Retail Outlets
- Specially designed Batch Controller to display volumetric Flow and amount payable
- Specially designed to meet the safety requirements of Retail Outlets
- User friendly operation.
- Can work both in local mode and also can be connected to Supervisory System



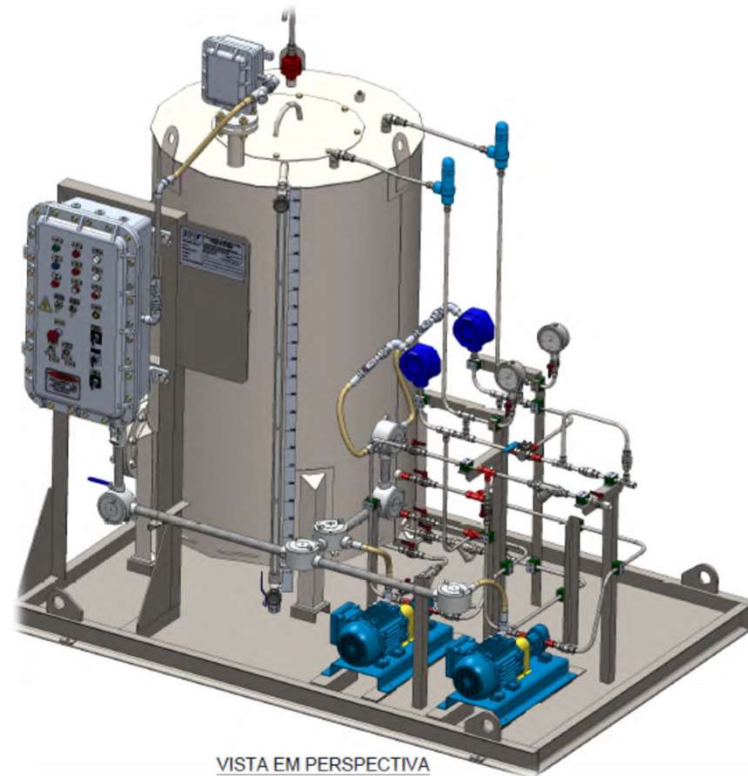
Diesel Exhaust Fluid (AdBlue®) Plants

- Diesel Exhaust fluid is used in diesel vehicles to reduce the NOx content in the exhaust.
- The fluid reduces the NOx into nitrogen and water in the exhaust thereby reducing air pollution caused by diesel vehicles.
- Adblue® is a trademark of VDA (Association of German Automobile Manufacturers). It is a mark of quality for DEF products and a VDA license indicates that the DEF product meets the requirements of ISO 22241
- Fully automated design to conserve energy and minimise human intervention



Additive Injection Systems

- Complete Design, Engineering, Manufacture, Supply, installation, commissioning and after sales support for following applications:
 - Chemical Injection
 - Biocide injection
 - Dye Injection
 - Blending Systems
- We design completely automated systems.



Products



BATCH / ADDITIVE CONTROLLERS

Smart Controller for loading/additive injection applications



PROXIMITY CARD READERS

Access Control Card readers for vehicles and personnel



GROUNDING/EARTHING DEVICE

Ultimate safety device for Static Ground detection and truck identification .



MAGNETICALLY LOCKED VALVES

Secure Locking arrangement for needle valves



OVER SPILL DETECTOR

Most accurate device for detection of overspill condition for tank trucks



PULSE TRANSMITTER

Pulse Transmitter / generator for converting rotatory motion to pulse signals

Batch Controller

Smart Load®

- Electronic Preset used to measure & deliver precise quantities of Product in loading and retail applications.

Features:

- Controls Single or blended product loading with additives & Blends
- Direct interface with flowmeters, Safety interlocks, card readers & automation software
- Controls Digital Control valves, additive injector blocks
- Can Control up to 4 products / blends and six additives
- Temperature & Pressure compensations as per API, IP or linear methods
- W&M approved for use in custody transfer as per OIML R117.
- PESO, IECEx , ATEX approved for use in Gr. IIA, IIB.



Access Control – Card Reader

Sentry – Card reader

- Restricts access control of unauthorized person /vehicle in harsh and hazardous area.

Features:

- Non Contact proximity technology
- Uses 125 Khz proximity technology
- Up to 64 card readers can be connected over daisy chain to a single communication port.
- ATEX / IECEx certified for use in hazardous area Gr IIA / IIB
- PESO Approved



Grounding/Earthing Device

Smart Ground Detector +®

Used in Terminal Automation as well as used in wide range of applications like Process, Chemical, Petrochemical, Pharmaceutical and Paint Industries

Features:

- Ensures true grounding by connecting to vessel only and not through any structure.
- Easy connection with crocodile clamp or rugged plug & socket
- Detects resistance in the earth loop and Monitors earth potential
- The Earthing Status can be transmitted over a remote computer through built-in serial port
- ATEX / IECEx certified for use in hazardous area Gr IIA/ IIB
- PESO Approved



Tamper Proof Needle Valves

KeySpin

An anti-tamper device designed to prevent unauthorised operation of instrumentation valves.

Features:

- Used for secure operations of Digital Control Valves, ON-OFF Valves, Throttling Valves, and Needle Valves in Flow metering & Control applications.
- The Needle valves are available in various sizes from 1/4" to 1" inlets
- Needle valves available in 316 stainless steel body
- Protection against vandalism and un-authorised use



Over Spill Detector

Over Spill Detector

Prevents Overspill during loading operation of any hazardous/ non-hazardous liquid

Features:

- Overspill detection sensor is integrally fitted to the drop tube.
- Can be fitted to any top loading arm.
- Highly accurate and zero drift sensing technology
- Fail safe operation.
- No moving parts
- PESO Approved for use in Zone 0 applications.



Pulse Transmitter

Pulse Transmitter

Generates Pulses to convert a revolutory motion into electrical pulses proportional to the number of revolutions

Features:

- Generates Dual pulses for one complete revolution.
- Complies to Level A pulse security
- Can be fitted to all PD meters with customised couplings
- PESO Approved.



Our Capabilities

- Project Management
- Design & Engineering
- Quality Assurance & Control
- Diverse Software Applications
- Services

Project Management

- Define Structure
- Goals and Objectives
- Planning, Scheduling and Monitoring
- Scope and Change Management
- Risk Management
- Monitoring and Reporting
- Quality Management
- Stakeholder Management
- Communication Management
- Performance Management
- Project Closure
- Lessons Learnt

Design and Engineering

- Terminal Automation Systems
 - Custody Transfer Metering Skids
 - Fuel Farm Automation
 - LPG Plant Bulk TT Loading/Unloading and Cylinder Counting Automation
 - Lube Plant Automation
 - Factory Process Automation
 - Brewery Plant Process Automation
 - Chemical Plant Process Automation
 - DEF AdBlue® Manufacturing Plants
 - Blending and Additive Systems
 - Mobile/Fixed Dispensing Units
- P&IDs
 - General Arrangement Drawings
 - Cause and Effect
 - Block Diagrams
 - Loop Diagrams
 - Piping and Structural Design
 - 3D Models
 - Functional Design Specifications
 - Data Sheets
 - Stress Analysis
 - Pressure Drop Calculation

Quality Assurance & Control

Assurance

- Defining Quality Design & Engineering Specifications
- Defining Quality Procedures
- Root Cause Analysis
- Corrective and Preventive Action Plans
- Adherence to QMS
- Monitoring & Achieving Departmental Goals and Objectives with Cadence System
- Training

Control

- Monitoring & Adherence to Processes and Procedures
- Inward Inspections
- In Process Critical Inspections
- Final Inspections
- Quality Documentation
- Traceability / Material Record Book
- Certification and Clearance

Software

- **Customized Applications** – Customized Application Development to optimize Business Performance
- **Product Engineering** – Quality Software Product Development meeting Customer's specific requirements
- **Analytics & Insights** – Innovative Solutions development to transform data assets to actionable insights
- **Cloud** – Next-Gen Cloud based solution development to accelerate digital transformation
- **Internet of Things (IoT)** – Solutions development to connect, monitor and control smart consumer/industrial devices, 'Things'
- **Embedded Software** – Firmware development for varied range of Microcontrollers



Services

After-Sales Service -

- 24x7 Onsite Support
- Remote Support through dedicated expert
- Comprehensive Annual Maintenance Contracts
- Calibration Service
- System Upgrades and enhancement
- Plant Automation and upgradation

Key Projects - Executed

Sr. No.	Project Details	Approximate Value (MUSD)
1	Automation System for 18 Locations – Truck Loading, Tank Farm, Blending etc	6.90
2	Terminal Automation System at Nigeria	5.96
3	Terminal Automation System, CCTV, Access Control, Tank Farm etc at North India	3.68
4	Automation for various Enclosures	3.65
5	Terminal Automation System for 8 Locations in India	3.14
6	Automation for various locations in India	3.03
7	Terminal Automation System – Truck and Wagon Loading Automation in South India	2.89
8	Terminal Automation System, Truck & Wagon Loading Automation in South India	2.67
9	Automation for 4 Locations – Truck Loading, Tank Farm, Fire Alarm System etc	2.54
10	Terminal Automation System at Mumbai	2.31
11	Automation System at East India	1.72
12	LPG Bottling Plant Automation – Bulk TT Unloading and Cylinder Counting in West India	0.85
13	Additive Skids at 7 Locations	0.75
14	MDU Skids at Various Locations Pan India	0.51
15	Blending Skid with RVP Analyser and Gas Chromatograph at Nigeria	0.27

Key Projects – Under Execution

Sr. No.	Project Details	Approximate Value (MUSD)
1	Terminal Automation System at West india	7.03
2	Terminal Automation at South India	6.02
3	Terminal Automation at North-East India	5.24
4	Terminal Automation at South India	4.21
5	Terminal Automation System at Mongolia	3.50
6	Electrical and Instrumentation Works at South India	3.03
7	Airport Fuel Farm Automation with Truck Loading and Unloading at West and Central India	2.04
8	LPG Bottling Plant Automation at East and South India	1.26
9	Liquid Filtration, Custody Metering and Pressure Regulating Skids at North India	1.01
10	Liquid Custody Transfer Metering Skid at North India	0.24

Key Customers

- Gulf Farabi, Saudi Arabia
- LPRC, Liberia
- Pedrazzini, Switzerland
- Petrofac, Sharjah
- Hindustan Petroleum Corporation Ltd.
- Bongaigaon Refinery & Petrochemicals Ltd.
- Bharat Petroleum Corporation Ltd.
- Oil & Natural Gas Commission Ltd.
- Shell, Hong Kong
- VOPAK, Netherlands
- India Oil, Mauritius
- Petroplus, Switzerland
- IEC, Nigeria
- Adani Group
- Shell, Hazira
- Nipco Plc, Nigeria
- PT Pertamina, Indonesia
- Indian Oil Corporation Ltd.
- Indian Oil Tanking Pvt Ltd.
- Reliance Industries Ltd.
- Gas Authority of India Ltd.
- Nayara Energy
- Petro Brazil
- Cairn Energy
- GSPL/GSPC
- TOTAL, Tanzania – Gapco
- Oil India Limited
- Petronet LNG
- Connex Petroleum, Liberia



Credentials (Voice of Customers)

GAPCO

M/S Advanced Sys-Tek (AST) has supplied and installed Fully Automated Truck Loading Gantry at Dar Es Salaam Terminal of GAPCO Tanzania Ltd, in 2013. This Terminal is the biggest facility with storage capacity of 100,000 Cubic Meters among Oil Marketing Facilities in Tanzania and distribution through 8 bay Multiproduct Truck Loading Gantry for Gasoline, Gasoll, Kerosene and Jet A1 product loading.

"This Smart Terminal Manager system has helped us in improving our productivity and' throughput while imparting adequate security measures."



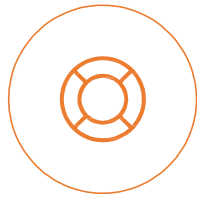
M/s.Advanced Sys-TekPvt. Ltd. has automated country's first stat-of-the-art 'Terminal of NIPCO PLC at Lagos in Nigeria having storage and distribution facility of White 011 (AGO, DPK, PMS) & LPG products consisting of 3 floating Tanks, 4 Fixed Roof Tanks & 3 Spheres. The distribution 15 carried out through 13 bays.

"We are happy to recommend Advanced Sys-Tek Pvt for any requirement with respect to automation of storage and distribution facility."



HOME

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India



SUPPORT

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