



Process Solutions

A Division of EGM

PRODUCT OFFERING AND SOLUTIONS GUIDE





COMPANY OVERVIEW

At L&L Process Solutions, it is our mission to partner with you and quality suppliers to bring you the very best solutions and products to meet the challenges of the industries we serve.

L&L Process Solutions has built a knowledgeable and experienced team to offer support to clients in solving industrial application challenges. The company is organized in a unique manner to serve the needs of a wide variety of industrial, municipal and large commercial clientele. Its structure lends itself to combine the inventory and distribution capabilities for analytical and process instrumentation, valves, industrial pipe, fittings and accessories with a full line of instrumentation and automation products.

As an affiliate of EGM LLC, we have the capabilities to truly be a total solutions provider for all your process automation needs. EGM is a leading producer of value-added process and chemical feed systems for a wide range of industries and applications. Our equipment design and manufacturing expertise is backed with years of specialty chemical sales, service and application development experience. The entire line of equipment solutions provided by EGM is built on a philosophy that better designs bring better value.

In addition, we offer a complete electrical panel, control panel, and automation services through our EGM Automation group. From simple motor starter units to complex PLC based designs, we can handle most industrial, municipal or commercial electrical and automation requirements. We are a CSA and UL certified shop.



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L&L SERVICE:



At L&L Process Solutions, we provide professional and proficient service for the set up and calibration of various instruments and devices (included, but not limited to):

- Level (ultrasonic, radar) and pressure transmitter
- Temperature elements and transmitters
- Flowmeters
- Density meters
- Valve actuators and positioners
- Analytical instrumentation (ph/orp, conductivity, silica, sodium, dissolved oxygen, gas detection)
- Variable frequency drives



L&L TEAM:

Larry Norman

General Manager
lnorman@egm-llc.com
Mobile: +1.251.401.0794

Pam Lee

Inside Sales
pamlee@egm-llc.com
Mobile: +1.251.422.8108

Bradley Booth

Inside Sales
bbooth@egm-llc.com
Mobile: : +1.334.750.1336

Steve Jones

Inside Sales
sjones@egm-llc.com
Mobile: +1.228.547.1544

Tim Lee

Sales Manager
timlee@egm-llc.com
Mobile: +1.251.422.8107

Frank Touart

Territory Sales Manager
ftouart@egm-llc.com
Mobile: +1.251.709.7609

Jeremy Glass

Territory Sales Manager
jeremy@egm-llc.com
Mobile: +1.251.423.5296

Ben Harper

Territory Sales Manager
bharper@egm-llc.com
Mobile: +1.251.320.9310

Kyle Terrell

Territory Sales Manager
kterrell@egm-llc.com
Mobile: +1-256-510-6573

Larry Kennedy

Territory Sales Manager
lkennedy@egm-llc.com
Mobile: +1.251.422.2794

Jeffrey Hunt

Territory Sales Manager
jhunt@egm-llc.com
Mobile: +205.999.9321

Tyler Lee

Inside Sales
tylerlee@egm-llc.com
Mobile: +251.243.3461



John Chisholm

Service Technician

jchisholm@egm-llc.com
Mobile: +1.228.990.9644

CHEMICAL DELIVERY SYSTEMS -TURN KEY SOLUTIONS

WATER TREATMENT CHEMICAL SYSTEMS

- Turn key system for make-down and delivery of flocculant and coagulant chemicals
- Automated make-down and concentration control

PAPER SPECIFIC PROCESS EQUIPMENT

- Automated delivery of industry specific chemistry for paper and board manufacturers
- Helps customer optimize chemistry feed for more profitable process

METERING PUMP SYSTEMS

- Multiple pump type and arrangements to accommodate any feed scheme
- Available in thermoplastic or SS framing
- Cooling tower, boiler, and wastewater applications

SKID MOUNTED EQUIPMENT

- Tanks, vessels, and pump stations
- Solid feed systems and Dechlorination skids



HYDROGEN GENERATOR MONITORING EQUIPMENT

Generator Gas Manifold

- Online gas analysis for Hydrogen purity in generators
- Automated/ Operator initiated generator purge from control room.
- Ability to avoid operations interaction with potentially dangerous environment

Purity Monitoring

- Monitor purity of gases in the generator using thermal conductivity
- Triple range sensor providing continuous measurement of gas purity

Hydrogen Dryer

- Removes impurities (such as moisture) from generator cooling gas
- Improves heat transfer inside generator to reduce windage loss

Portable Gas Analyzer

- Portable Hydrogen analyzer for redundant measurements during purge cycle
- Can be dedicated for short term installation

Gas Feed Systems

- Vaporizers and heaters to reduce CO2 freezing and flow restrictions
- Turn key system to ensure no details are overlooked on your system



WEIGHING SYSTEMS

Process Weighing

- Weight of vessels and tanks
- Versatile load cells can measure a wide variety of force
- Level monitoring of silos by weight

Crane Weighing Systems

- Total weight measurement for protecting cranes against overloads
- Designed to be replace in kind with OEM load pins
- Maintenance software for monitoring PM schedule
- Accuracy to 0.1%

BLH NOBEL
A VPG Brand

Web Tension

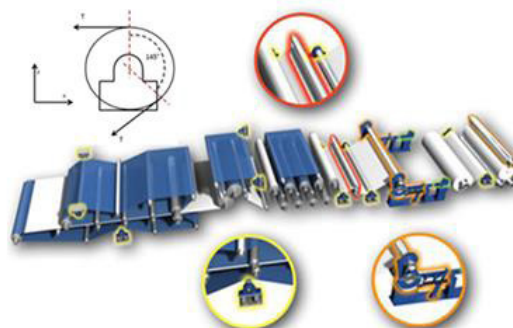
- Web tension monitored by force through load cells
- Used on paper machines and steel strip lines

Process Automation

- Variety of communication protocols, including wireless



Process Weighing Systems



Web Tension Systems



Load Cells



Instruments & Accessories

AUTOMATION & ELECTRICAL PANEL FABRICATION

Turn Key Electrical Shop

- Custom built and designed HMI, PLC and control panels
- Starter & drive panels design and construction
- UL 508A & CSA certified fabricator
-

Custom Engineered Solutions

- Extensive knowledge in wireless communication protocols—including web based data reporting
- PLC programmers fluent in Allen Bradley, GE and Siemens
- Programmers are available for in –field or remote based troubleshooting
-

Wireless Accessibility

- Remote data reporting for process optimization and real time alarms
- Remotely monitor field equipment in previously hard to reach areas

Automation Accessories

- Full line of signal isolators and embedded I/O devices
- Digital panel meters and accessories



**PRECISION
DIGITAL**

EGM
Automation and Controls

Acromag 
THE LEADER IN INDUSTRIAL I/O

FLOW MEASUREMENTS

Electromagnetic Flow meters

- Low noise Electrodes
- Partially filled pipe flow
- Virtual reference

Coriolis Flowmeters

- 1/2"-16" single straight tube Coriolis for no pressure loss
- Entrained Gas Measurement, slurry flow & density monitoring
- Multiple Alloy tube options (TI, Tantalum)

Vortex

- Universal devices for liquids, gases and steam
- Integrated pressure and temperature compensation, integrated energy calculator

Ultrasonic

- Inline used for: high temperature, superheated steam, custody transfer, and non-conductive liquids
- Clamp on for non-intrusive flow measurement on slurries and high purity water
- Open Channel flow measurement for ditches and weirs

Variable Area

- Glass and metal tube purge meters for low-flow applications 1/2"
- Glass and metal tube process meters up to DN150 / 6"
- Optional electronics: limit switches, analogue outputs, digital commune



 **measure the facts**



LEVEL MEASUREMENTS

Radar Level

- Non Contact level measurement for tanks, vessels and sumps
- 80 GHz capabilities for solids and liquids
- Variety of lens arrangements to accommodate each unique application

DP Level

- Transmitters, primary elements, diaphragm seals and accessories
- Ceramic and metallic measuring cells
-

Magnetic Level Indicators

- Contact level measurement of liquids
- Rugged stainless steel design, hermetically sealed, e.g. for flammable, toxic and corrosive media

Guided Wave

- Large choice of probes, e.g. for aggressive or abrasive media, high pressure or temperature and tanks with internals or boiling product surfaces

Plugged Chute

- Burst filter bag detection
- Detects incoming blockages & flow / no flow of solids

Switches

- Capacitance, conductive, vibrational switches for both liquid and solid levels



KROHNE

▶ measure the facts

Delta Controls
CORPORATION



pulsar ♦
MEASUREMENT

PROCESS ANALYTICAL—GAS

Gas and Flame Detection

- Wireless (up to 32 sensors) battery operated gas analyzers
- Variety of detection sources and methods
- Local indication module available with horn and light



Combustion Analysis

- Flue gas and boiler analysis and control
- Coal bunker monitoring for CO and CO₂
- Turn key sample draw system for continuous monitoring

Weather Monitoring Systems

- Humidity, temperature and pressure weather stations
- Lightning monitor for personnel safety
- Dew point monitor



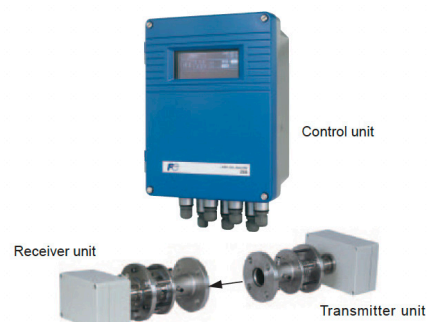
NDIR Laser

- Simultaneous and continuous measurement of 5 gases
- Automatic calibration on desired interval
- Single dual path laser for O₂ & CO
- Used in incinerators and boilers



FE Fuji Electric

RC SYSTEMS



VAISALA

PROCESS ANALYTICAL—LIQUID

Smart Sensors

- 2 wire “smart sensors” that require no transmitter
- Available for pH, conductivity, and dissolved Oxygen
- 4-20 mA output for easy integration into a DCS or PLC



Advanced Analytical

- Sodium, Silica, Phosphate measurements for high purity and BFW applications
- TOC and organic meters to identify process upsets
- True non-contact turbidimeter
- Bench-top meters and reagents for grab samples



ADVANCED ANALYTICAL

Solids Monitoring

- Optical sensors for solids monitoring
- Solids are measured in stock preparation, wet-end, broke recycling, etc...
- Ash content headbox measurements
- Fiber loss can be measured in streams to tighten up process

Measurement Solutions

- Inline measurements for density and viscosity
- Refractometer for inline concentration measurement
- Bench top instruments for lab measurements
- Superior process control

NIR—Components of a Stream

- Near-Infrared Moisture Measurement
- Instantaneous Moisture measurement, also measures Coating and Oil Thickness
- Applications for:
- Bio Energy, Minerals Mining, Bulk Materials, Wood, Food, Chemical, Converting, and Textile Industry



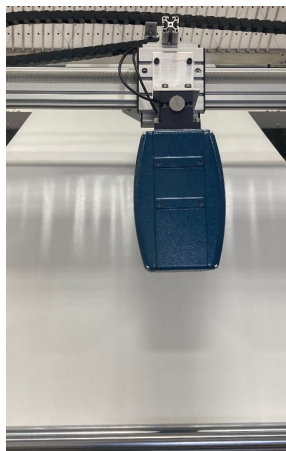
INVISTA™



Anton Paar



MoistTech Corp.®



TEMPERATURE MONITORING

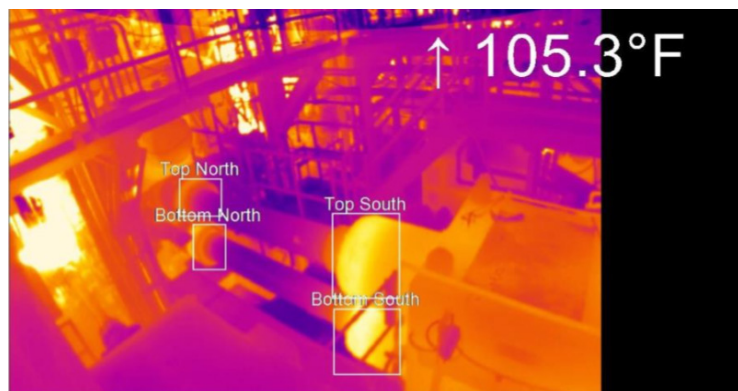
Non Contact Temperature Monitoring

- Infrared technology for point detection and alarming
- Plethora of cameras from pyrometers to 1080P
- Plug and play setup with included PixConnect Software
- Advanced Cooling Jacket can withstand temperatures up to 599 °F

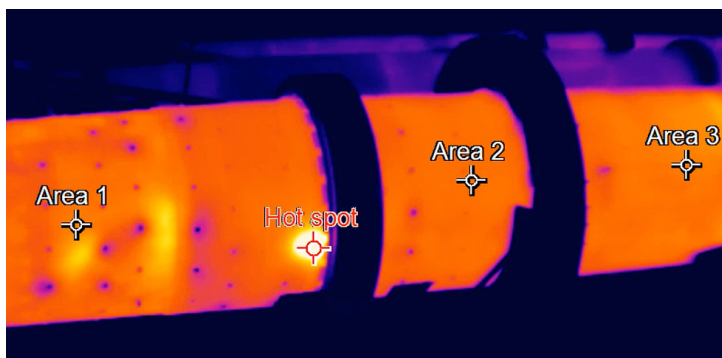
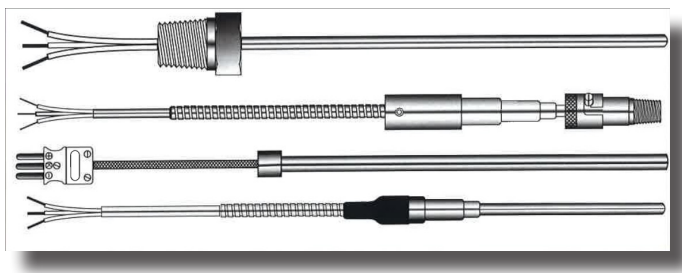


PixConnect Software

- Functionality to trigger alarms and recordings
- Ability to measure multiple points within the same frame
- Included with every camera purchase



Multipoint Temperature Monitoring RTD's / Thermocouples



PRESSURE MEASUREMENTS

Differential Pressure

High static pressure

Diaphragm Seals

For harsh environments

Local Indication

High vis faceplate for easy reading

Pressure Accessories

Manifolds

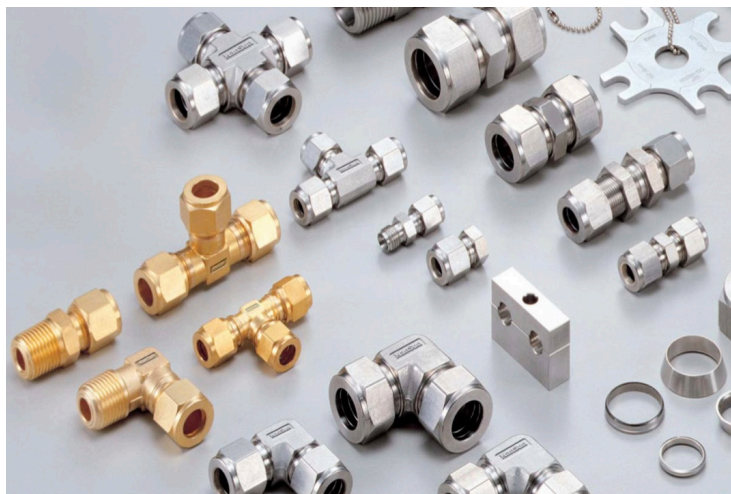


FITTINGS AND MRO ITEMS/ VALVE SOLUTIONS

S-LOK® NA Valves & Fittings

Tube Fittings

- S-LOK Single Ferrule Tube Fitting
- S-LOK Two Ferrule Tube Fitting
- Bite Type Tube Fitting (JIS B2351)



Pipe and Weld Fittings

Valves

- Needle valve
- Ball & Plug valve
- Check Valve
- Manifold & Gauge Valve
- Filter
- Relief, Bleed & Purge Valve



FITTINGS AND MRO ITEMS

Tubing Fittings and Valves

- Stocking inventory for same day and next day delivery options
- Inter-mixable and interchangeable with Swagelok and Parker
- Tubing fittings, instrument valves, hoses

Tubing and Piping

- Welded and seamless tubing
- Thermoplastic piping

Valves

- Solenoid
- Ball Valves
- Thermoplastic valves and accessories

Avtron Encoders

- Mill Duty encoders
- Instrument Stands



8030
Low Pressure



8210
General Service



8221
Slow Closing



8223
High Pressure



8225
Miniature



8220
Steam



8222
Cryogenic



215
Vacuum



353
Dust Collector



044
Manual Reset

Nidec
Nidec Avtron Automation

ASCO™

FITTINGS AND MRO ITEMS

Pre-Insulated Tubing/Tubing Bundles

- Thermally Insulated Transport line for steam, gas, or liquid
- Long-term savings when used to return condensate back to Boiler
- Eliminate Installation Failure
- Self-Regulating for Instrumentation lines
- Maintain Constant Fluid Properties (ie, viscosity)

Fiberglass Reinforced Plastic Protective Enclosures

- Material Technology makes these Enclosure Lightweight yet Strong
- Excellent Insulation due to Low Thermal Conductivity
- Resistant to Corrosion, Abrasion, and UV Radiation
- Electromagnetically Transparent for use
- Wireless Applications
- Fire Retardant



DEKORON®
Unitherm™
Tubing Bundle Experts Since 1962

Protected operating conditions
INTERTEC

VALVE SOLUTIONS

Control Valves

- Globe
- Rotary Globe
- Segmented Ball
- Anti Cavitation
- Microflow
- Corrosion Resistant



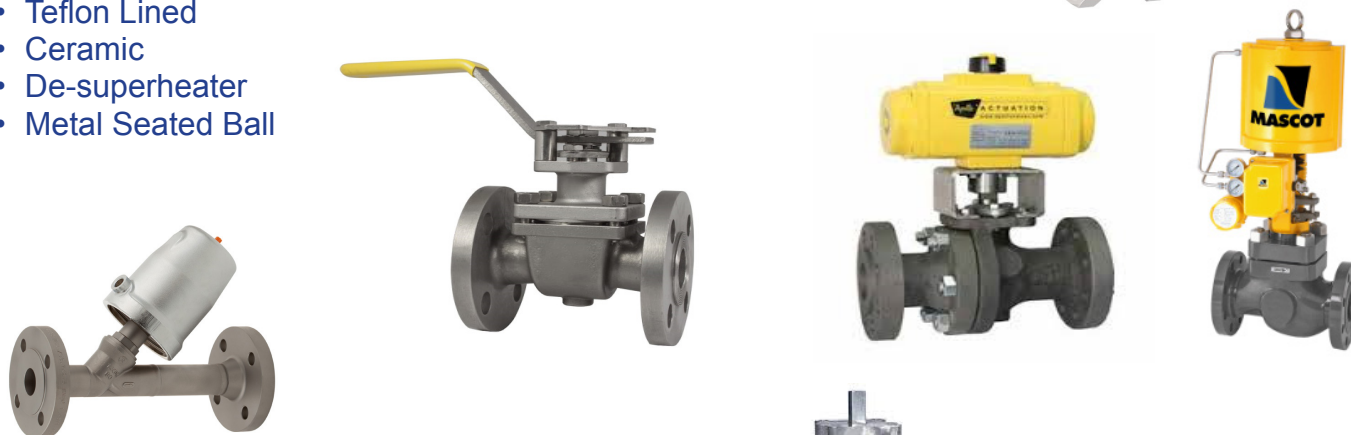
On / Off Valves

- Angle Seat
- Ball Valves
- Pinch Valves
- Double/Triple offset Butterfly
- Resilient Seating



Specialty Valves

- Teflon Lined
- Ceramic
- De-superheater
- Metal Seated Ball



HEAT TRACE

Industrial Heat Tracing Cables

- Self-Regulating Heat Trace Cables
- Constant Wattage Heat Trace Cables
- Mineral Insulated Heat Trace Cables
- Industrial Heat Trace Controls & Monitoring System Components & Accessories



Heaters

- Silicone Laminate Flexible Heaters
- Tank & Drum Heaters
- High Temperature Band Heaters
- Tubular Band Heaters
- Air & Radiant Heaters



Process Heaters & Controls

- Screw Plug Immersion Heaters
- Over-the-Side Immersion Heaters
- Flanged Immersion Heaters

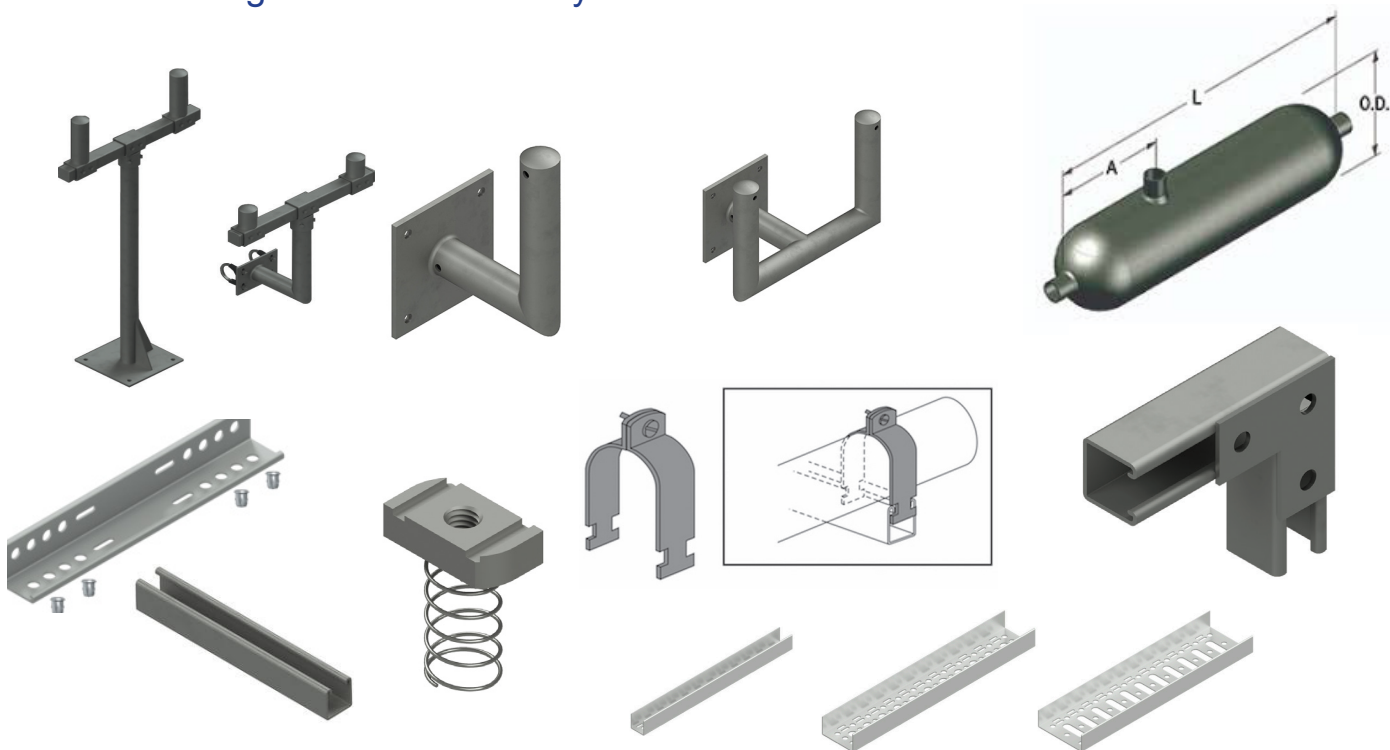
Steam Generators



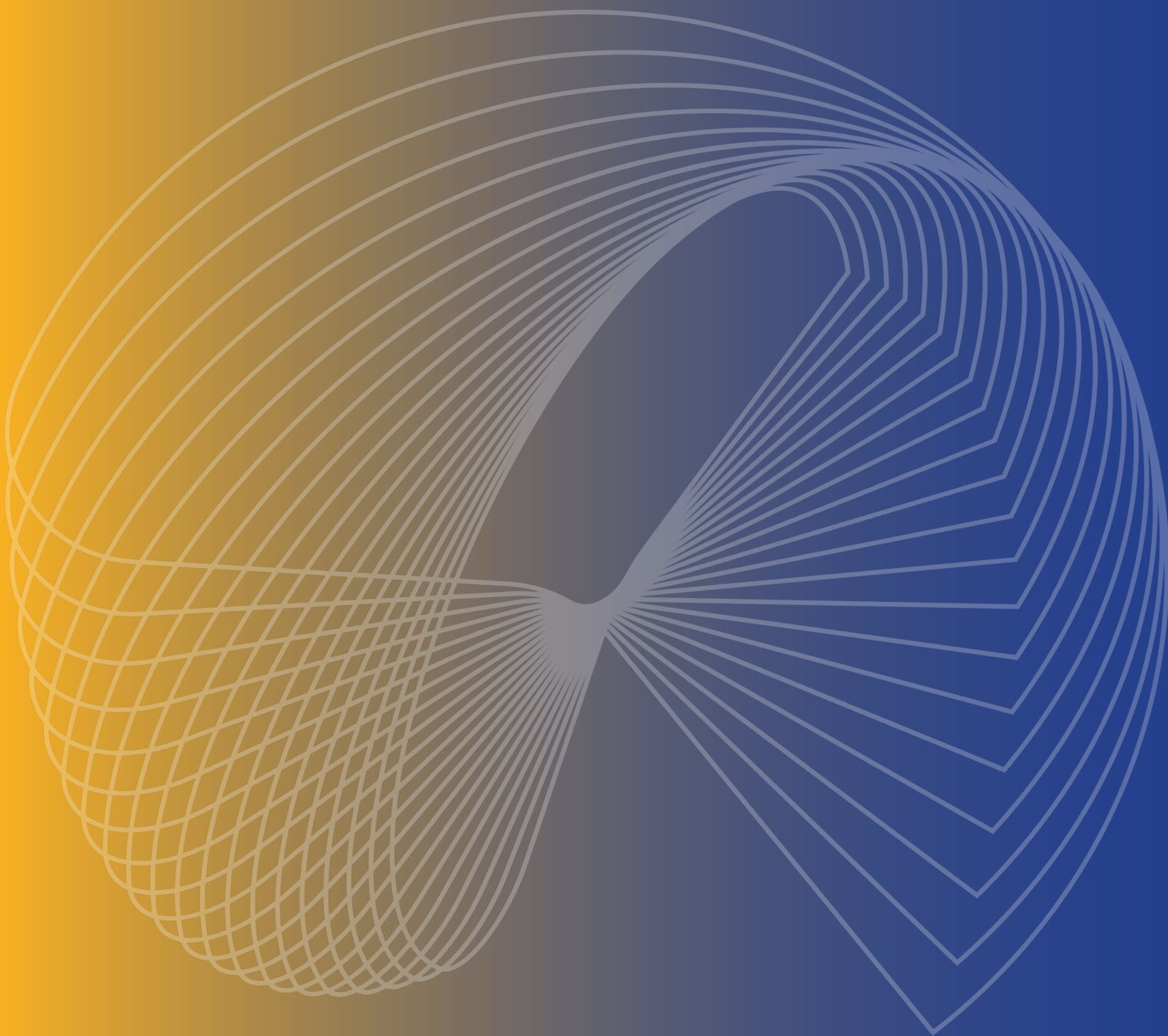
INSTRUMENTATION ACCESSORIES

Accessories:

- Instrument Stands
- Distribution Manifolds
- Condensate Chambers
- Instrument Racks
- SnapTrack Cable Trays
- Perforated Angled & Channel Trays



NOTES:



L&L Process Solutions
3748 Industrial Park Drive
Mobile, AL 36693
251-660-8255