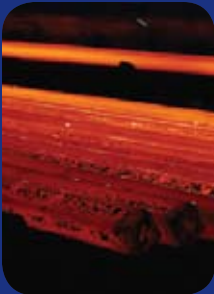


Electrical, Mechanical, Reliability & Process Engineering



industrial electrical contractors | engineering | maintenance | integration | panel fabrication



Dubak Engineering Group LLC

www.dubakengineering.com



innovative
solutions



TUBE MILL ENGINEERING & MAINTENANCE



Dubak Engineering has the capability to support The Client's Engineering & Maintenance Group on a contracted basis with maintenance, repairs, resolution, and engineering as it relates to Tube Mill Processes, including but not limited to **ALL Strip Entry, Looper, Forming Mill, Welding Stations, Cooling Tables, Cut-Off Saws, Finishing, Material Handling / Conveying Equipment, Measurement Feed Back Systems, High Frequency Welding and Steel Slitting Equipment.**

Dubak personnel are tasked with responding to the plant's Electrical & Mechanical Systems Engineering and Maintenance.

SCOPE OF WORK CAN INCLUDE:

- Maintenance Engineering Functions Process Wide.
- Re-engineer out problems to resolve repeat failures.
- Develop a prioritized resolution list.
- Dubak as your Complete Maintenance Team Covering ALL Shifts.
- Daily maintenance & repair of the plant MILL equipment.





CONTROL & AUTOMATION

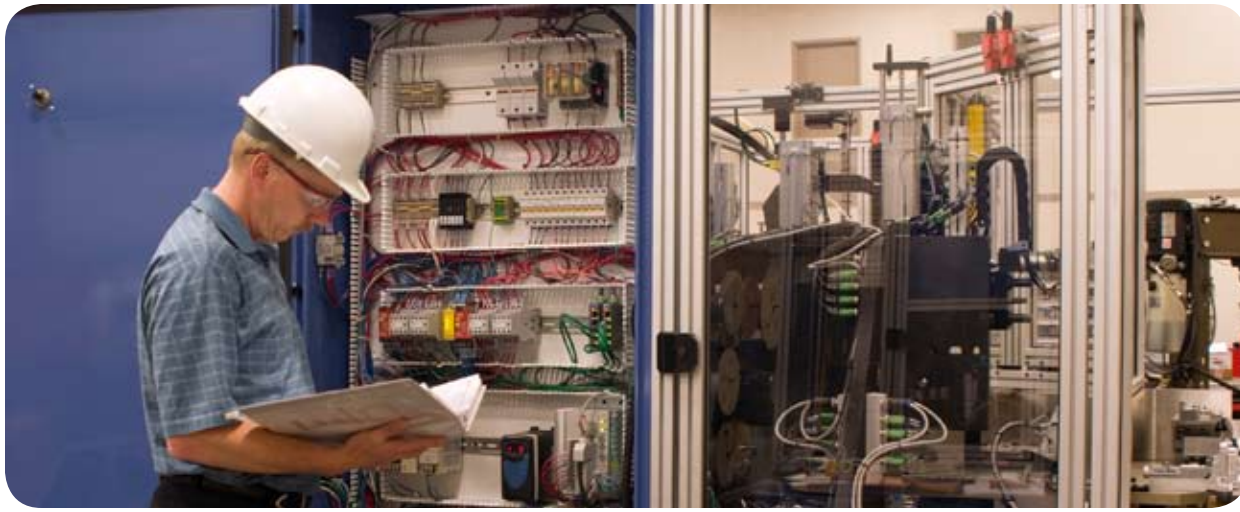
DESIGNING, ENGINEERING, FABRICATING AND CONSTRUCTING CONTROL PANELS, ELECTRICAL CONTROL ENGINEERING, PLC PRO-GRAMMING, AND HUMAN MACHINE INTERFACE PROGRAMMING.

INDUSTRIES SERVED

- Chemical Facility
- Food Process Facility
- Medical Facility
- Manufacturing Facility
- Natural Gas Facility
- Petrochemical Facility
- Pharmaceutical Facility
- Power Plant Facility
- Pulp and Paper Facility
- Steel Foundry Facility
- Tube Mill Facility

Dubak Engineering control system engineers are capable of designing, engineering, fabricating and constructing control panels, electrical control engineering, PLC Programming, and human machine interface programming. Our staff – with over 20 years of experience – consists of programmers, engineers, panel builders, and support personnel providing a complete solution for plant automation. We have years of experience in Allen Bradley, Siemens, Omron, and General Electric control and automation. Our graphical interface experience includes products such as Controlview, Factorylink, Intellutions, WIN CC, and Wonder Ware. These graphical interface packages, along with our heavy emphasis in data acquisition and programming capabilities, allow for a robust control system which allows the customer to maximize their investment.





ENGINEERING

Dubak Engineering prides itself on the reputation that it has built while providing electrical design, electrical engineering, electrical installation and electrical maintenance for industrial processing facilities. Our 100% commitment to customer satisfaction ensures that our customers have a competitive advantage on all of their electrical and mechanical projects. We specialize in providing value added services to our customers that focuses on the needs of our customers ensuring that our products and services to improve value without sacrificing quality, reliability or service.

OUR CAPABILITIES INCLUDE

- 3D CAD Drawings
- Pre-Project Planning
- Value Added Services
- Utility Service Coordination
- Electrical Audits
- Quality & Safety
- Installation & Maintenance
- Project Management
- Engineering Design
- High & Low Voltage
- Procurement

Our Engineering Group works with the clients business needs through conceptual design while utilizing state of the art construction disciplines to examine the entire scope of the project. Dubak prides itself on incorporating all project issues to provide the greatest potential of success for our customers including cost improvement, life cycle expenditures, capital cost expenditures, project management, scheduling, procurement, installation, process training, service and maintenance.



SAFETY INFORMATION



SAFETY PROGRAMS

- Full-time Safety Director
- Safety Manual for Industry
- Daily Safety Meetings
- Weekly Safety Audits
- Pre-job Meetings
- Progressive Disciplinary Policy
- Drug Testing
- Test for Cause
- Accident/Near Miss Investigation
- Safety Training (includes new hire orientation)
- Yearly Foreman Appraisals tied to Safety Performance
- Project Safety Analysis - P.S.A. A pre-job assessment of known or predictable hazards

At Dubak Engineering, Safety is our primary concern. That's why we have a company wide goal of Zero injuries and accidents on every job we perform. Through constant reiteration of our safety procedures, immediate response to all unsafe acts, and positive reinforcement of safe behavior, we have been highly successful in reduction of higher-risk activities. Our Safety Record works for you with a reduction in our E.M.R. and lowered insurance costs, a savings which we pass on to the customer, as well as personal comfort of finishing each day accident free.

Dubak Engineering recognizes that safety is the most important aspect of our business. We owe it to both our customers and our employees to maintain the highest of standards when it comes to safe working conditions and methods.

Our Safety Committee is comprised of top-level management from all divisions, who work closely with Dubak Engineering Safety director and consultants to review and update current policies and procedures, to guarantee the highest possible level of safety performance.

As our company has grown, we have stepped up our efforts to ensure safety on each and every project, including a Safety Orientation for new personnel, and company wide Awareness and Incentive programs to promote a safe working environment ; and finally yearly safety orientation of ALL field and management personnel.





CONTRACT MAINTENANCE

For over 15 years, Dubak Engineering has worked to become a leader in providing cost-effective contract maintenance services to our Industrial clients. Our continuous contracts with multiple Fortune 500 firms are an indication of our value in the Industrial sector. Our experience with contract maintenance has given us the expertise to help reduce your annual cost without sacrificing safety or quality.

In our service sectors, where competition is driven primarily by cost, facility and plant maintenance is a required service. Contract maintenance is the most cost-effective and reliable approach to ensuring a plant's operation. Our highly experienced workforce, consisting of extensively trained and experienced journeymen, assures excellence, control, and accountability. Whether your needs revolve around full time or periodic contract maintenance, Dubak Engineering can be your single source provider for plant contract maintenance requirements.

INDUSTRIES SERVED

- Chemical Facility
- Food Process Facility
- Medical Facility
- Manufacturing Facility
- Natural Gas Facility
- Petrochemical Facility
- Pharmaceutical Facility
- Power Plant Facility
- Pulp and Paper Facility
- Steel Foundry Facility
- Tube Mill Facility

OUR SERVICES INCLUDE:

- Preventive Maintenance Programs
- Predictive Maintenance
- Duty & Task Analysis
- Shutdown Planning & Coordination
- Maintainability & Operability Coordination
- Material Warehousing & Management
- Facility Maintenance

LIGHTING

- Re-lamping, Re-ballasting
- Fluorescent
- H.I.D
- Metal halide & high pressure sodium systems
- Incandescent systems
- Troubleshooting wiring

CONTROL SYSTEM / AUTOMATION

- Programmable Logic Controller
- Programming all makes and models
- System troubleshooting
- PLC replacements / new installations
- Process Management Systems
- Software programming and screen design

POWER

- Switch gear
- Electrical distribution panel maintenance
- Motor control centers / motor controls
- Preventative Maintenance
- Color Thermography

A thermal image of a light bulb, showing a bright white and yellow glow at the top where the filament is, transitioning through green and blue to a dark blue base. The background is a blurred thermal image of an industrial setting.

COLOR THERMOGRAPHY

DUBAK ENGINEERING UTILIZES INFRARED IMAGING SYSTEMS WITH POWERFUL SOFTWARE TO PROVIDE A FAST AND EFFECTIVE MEANS OF IDENTIFYING POTENTIAL PROBLEMS IN ELECTRICAL AND MECHANICAL EQUIPMENT, REFRACTORY AND INSULATION MATERIALS. THIS INFORMATION IS COMPILED INTO A COMPREHENSIVE REPORT USING EASILY INTERPRETED TEXT WITH THE INFRARED IMAGE AND A VISIBLE LIGHT REFERENCE. PREVENTIVE OR CORRECTIVE REPAIRS CAN THEN BE SCHEDULED ON A PRIORITY BASIS.

INTRODUCTION TO INFRARED THERMOGRAPHY

Infrared thermography is an effective means to identify excessive heat loss in systems or materials.

Every object radiates electromagnetic energy invisible to the human eye but visible to specialized equipment. Thermal imaging radiometers can detect and measure infrared radiation, and produce a map of colors or varying shades of gray that show the surface temperatures of the object. The lighter colors or shades represent the warmest temperatures, and the darker colors or shades the coolest. By analyzing the temperature signatures of equipment, problem areas are quickly identified and recorded along with all of the related temperature information.

COMMON APPLICATIONS

Thermography was first utilized in the inspection of electrical equipment to locate high resistance connections or faulty components. It has also been proven in finding areas of reduced insulation in buildings and refractory materials, and even leaks in building roofs.

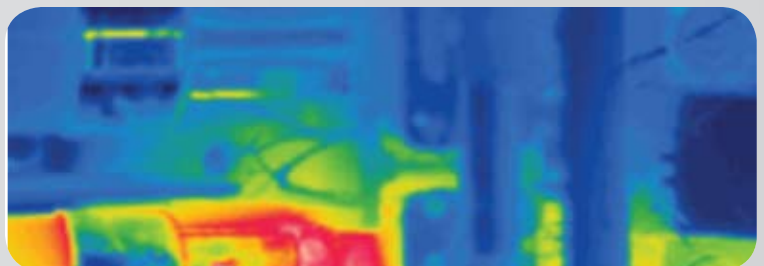
Inspection of rotating machinery is a way in which thermography is now being used more extensively. It has been found effective in identifying faults in bearings, couplings, and shorts in motor cores.

THERMOGRAPHY IS COST AND TIME EFFECTIVE

- A non-contact, non-destructive means of testing
- Reduce downtime
- Virtually eliminate unnecessary work
- Reduce unnecessary material expenses
- Avoid catastrophic failures
- Direct maintenance to the root of the problem

UR SERVICES INCLUDE:

- Refractory Applications:
- Annual Inspections
- Testing and Documentations
- Amprobing
- Insurance Inspections
- Process & Product Applications
- Energy Conservation





INSTRUMENTATION



DUBAK ENGINEERING INSTRUMENTATION SOLUTIONS PROVIDE CUSTOMIZED INSTRUMENTATION SYSTEMS FROM DESIGN TO INSTALLATION, AND SERVICE. OUR INSTRUMENTATION TEAM TAKES PRIDE IN THEIR ABILITY TO MEET PROJECT SCHEDULES AND EXCEED EXPECTATIONS OF OUR CUSTOMERS. IN ADDITION TO THE ENGINEERING AND DESIGN SUPPORT, CALIBRATION, COMMISSIONING, PREVENTIVE MAINTENANCE, AND START UP ASSISTANCE FOR ANY SIZE AND TYPE OF INSTRUMENTATION PROJECT. WHATEVER YOUR NEEDS MAY BE, DUBAK ENGINEERING INSTRUMENTATION TEAM HAS THE ABILITY TO GET YOUR PROJECT DONE ON-TIME AND ON-BUDGET.

- Instrument and control maintenance
- Hydraulic and pneumatic tubing
- Custom tubing layout and installation
- Calibration and bench testing services
- System evaluation and testing
- Distributed control system (DCS)
- Programmable logic controllers (PLC)
- Microprocessor-based system control
- Instrument panel and rack fabrication
- Startup and checkout assistance
- Shutdown and outage work
- Maintenances planning
- Return on investment feasibility studies
- Efficiency studies

Dubak Engineering instrumentation solutions typically consist of instrumentation hardware delivered through premier services such as consulting, specification, procurement, configuration, installation, commissioning, and start-up. The instrumentation team's brand independence and objectivity allows them to deliver instrument packages properly applied to customer's processes. Dubak Engineering instrumentation team also provides services such a end user training, feasibility studies, and asset management systems .

POWER



AT DUBAK ENGINEERING GROUP LLC., OUR HIGHLY EXPERIENCED TEAM MEMBERS ARE DEDICATED TO THE CREATION OF INNOVATIVE SOLUTIONS BASED ON YOUR SPECIFIC REQUIREMENTS AND ARE PREPARED TO DESIGN, CONSTRUCT AND TROUBLESHOOT EVEN THE MOST COMPLEX INSTALLATIONS. SINCE OUR REPUTATION IS BASED ON CUSTOMER SATISFACTION, WE ARE COMMITTED TO YOUR PROJECT FROM CONCEPTION THROUGH IMPLEMENTATION AND SUPPORT.

- Main Switchgear Installations
- Bus Duct & Riser Feeders
- Power & Control Wiring for Processing and Manufacturing Equipment
- Power for Commercial and Industrial Projects
- Computer Room Installations
- Emergency Services

MISCELLANEOUS MAINTENANCE:

- Equipment Relocation
- Splice Pit Excavation & Backfill
- Raising & Lowering of Equipment
- Cable Relocations
- Pole Base Excavation

UNDERGROUND DISTRIBUTION (UD)

- New Constructions and Terminators
- Up to 13,800-volt Primary and Secondary Extensions
- Cable Section Replacement for Faulty Circuits
- Reconstruction & Emergency Restoration
- Uninterruptible Power Systems
- Generator System Installation
- Preventive Power Maintenance Programs
- Equipment Relocations, Additions, & Alterations



On-call services 24 hours a day, 7 days a week, to prepare for the unexpected emergencies should a failure occur outside of normal business hours.

24 HOUR EMERGENCY DISPATCH SERVICES
1.800.677.6303



TEAM DUBAK PARTNERING PROCESS

Total Engineering And Maintenance

TEAM DUBAK PARTNERING PROCESS PRODUCES COST-EFFECTIVE AND INNOVATIVE SOLUTION, FOR LONG TERM FACILITY OPERATION, WITH OUR TOTAL ENGINEERING, INSTALLATION AND MAINTENANCE CAPABILITIES.

The TEAM Dubak Partnering Process is a comprehensive Client Partnering Program Led by Dubak Senior Management which implements a Long Term Plan to Structure a Single Source Engineering, Maintenance, & Capital Project Team. The TEAM Dubak Partnering Process Focuses on the Operation and developing a mutually beneficial program between the client and Dubak establishing a solid foundation of Contractor Performance Metrics,

Plant Performance Metrics, Streamlining Production, Automating Systems, SCADA Development, Retaining Workforce, Workforce Development / Craft Training, Continuous improvement, & Safety Improvement

THE TEAM DUBAK PROCESS ACHIEVES:

- Higher Plant Reliability.
- Lower Material Costs / Procurement.
- Best Practice Achievements.
- Improved Safety.
- On-Time & On-Budget Project Completion
- Reliable, Developed, & Experienced Craft Labor Workforce.

ABOUT DUBAK

DUBAK ENGINEERING IS A NATIONAL LEADER IN THE ELECTRICAL, AUTOMATION, & TECHNOLOGY SECTORS, AND IS DEDICATED TO PROVIDING THE INDUSTRY'S MOST SKILLED CRAFTSMANSHIP, IMPECCABLE PERFORMANCE, AND COMPETITIVE PRICING TO OUR CLIENTS ACROSS THE NATION.

Dubak Engineering has emerged as a pacesetter and a Leader in the Electrical Engineering, Construction & Maintenance field since industry realized that a single source turnkey electrical group has proved to be the cost-effective approach to reliable plant operation. Dubak Engineering has offered clients construction & maintenance programs that ultimately reduce cost and demands, while maintaining stringent quality measures.

Dubak Engineering Group LLC. is a family-owned and operated company with an excellent record of success. Since 1988, we have consistently demonstrated a level of integrity and stability that has led to many continuing relationships with clients who appreciate our reliable and timely completion of projects, and our leadership.

PROJECT CAPABILITIES

Capital Expansion

Plant Relocation

Plant Shutdown

New Installation

New Construction

WHY DUBAK?

Quality is a Standard.

Safety is Our Culture.

Committed to Clients.

Innovative Solutions.

www.dubakengineering.com