





Jo-Kell Inc.'s Engineered Solutions Group



Electrical Supplies ----- Automation Systems ----- Engineering Navy Shipboard ----- Marine ----- Industrial

Jo-Kell Inc.

- Woman-Owned Small Business
- Over 30 Years of Service
- 3 Locations
- Over 60 Employees



Chesapeake



Jacksonville





Richmond



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Serving the following markets:

- Industrial
- Marine
- Navy Shipboard





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Credentials and Approvals

UL508-A Listed Facility Industrial, Crane, Marine

Certified Crane Integrator for ABB & Cutler-Hammer Drives

Panels built to NEC Requirements, NFPA-79, IEEE-45, USCG and ABS Standards









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ESG Systems Capabilities:

Systems Capabilities Include:



Motor Control Systems



Logic & HMI Systems



Power Distribution Systems

Additional ESG Systems Capabilities:

- AC & DC Adjustable Speed Drive Systems
- PLC and PC-based Control, Operator Interface & HMI / SCADA Packages

- Power Distribution Panels and Portable Carts
- Instrumentation Panels



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ESG Service Capabilities:



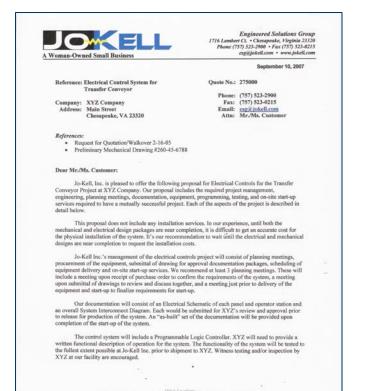
Value Added Services Include:

- Engineering Support
- Certified AC & DC Drive Start-Ups
- Drive Preventative Maintenance Programs
- Control System Troubleshooting and Repair
- PLC, HMI, and VFD Programming Services
- Training Seminars
- 24-Hour Service & Repair



What you can expect from Jo-Kell's Engineered Solutions Group!

Professional Evaluations & Bids



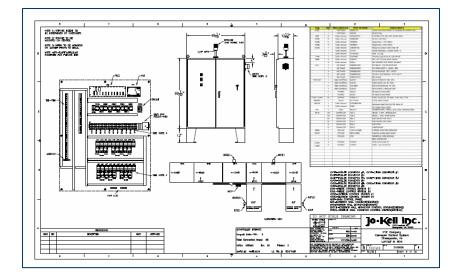
A Woman-Owned Small Bt	ELL		Engineered Sol mbert CL + Chesapeake te (757) 523-2900 + Fax esg@jokell.com +	Virginia 2332 (757) 523-021
A woman-owned Sman Be	isiness		Septemb	or 10, 2007
Ref: Electrical Co PO#: 12345	ntrol System for Transfer	Conveyor		
Customer: XYZ Con Address: Main Stre Chesapeal		Phone: (757) 52 Fax: (757) 52 Email: <u>csg@jol</u> Attn: Mr./Mrs	3-0215 ell.com	
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Approving Representa	ative	Date		
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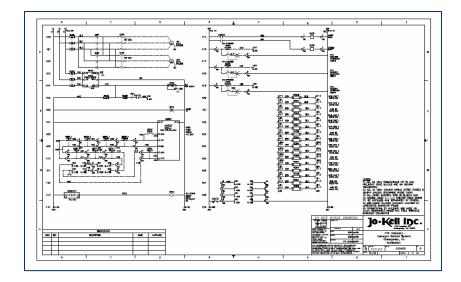


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What you can expect from Jo-Kell's Engineered Solutions Group!

Engineered Drawings





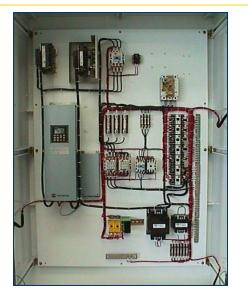


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ESG Application Studies

US Navy Diver Davit Hoist Controller





Background:

Existing 1980's vintage controls were unreliable, performed poorly, and emergency mode was used by default.

Scope:

Jo-Kell Inc. designed, manufactured, and commissioned a complete replacement controller system incorporating ac line regenerative hoisting drives.

Comments:

The use of line regenerative drives has provided for near zero harmonics and the elimination of resistor sets for electrical braking.



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ESG Application Studies

De-Watering Valve Drive System Replacement





Background:

A single DC motor was used to control the de-watering valves of two separate dry docks. Manually engaged clutches were used to connect the motor to the valve drive system that needed to be controlled. The system was unreliable and the manually engaged clutches were un-safe.

Scope:

Jo-Kell Inc. was the general contractor for this project, hiring both an electrical and mechanical contractor to provide the physical installation of the new system. Jo-Kell Inc. provided the design, build, and commissioning of the new AC gearmotor driven system.

Comments:

The new system incorporated the use of 2 separate gearmotors, each driving their own valve power train. The operation of the system is now via an operator station vice manually engaged clutches. This allows for a much safer, controllable valve drive system.



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The Jo-Kell ESG Difference

- Cost Effective Solutions
- Quality Workmanship
- Engineers on Staff, Inside and Outside
- Factory-trained electrical service technicians
- 24/7 Service
- System Commissioning Services
- AutoCAD Drawing Services



• ESG's personnel's experience in the controls industry exceeds 110 years!



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Jo-Kell's Engineered Solutions Group... The solution for your automation needs!



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