



EXCELLENCE THROUGH SERVICES











## INTRODUCTION TO EQUIPMENT & CONTROLS AFRICA AND ITS ANGOLAN OPERATIONS

Equipment & Controls CI Ltd. (ECCI), and its affiliates in Angola, Equipment & Controls Africa Lda (ECAL) and Sistemas e Valvulàs de Angola (SVA), is a leading provider of equipment and contract maintenance services to the oil and gas industry in Angola. We are well recognised through out West Africa for our expertise and experience to handle your Valve, Pump, Mechanical Seal, Instruments and Control System maintenance and repair services, regardless of your industry.

Equipment & Controls / SVA provides trusted expertise for reliability-centered valve maintenance and repair. We deliver quantifiable results using proven processes, cutting-edge technologies, and preventative services for lifecycle of your equipment. Equipment & Controls established its West African operations in 1998, to respond to the critical requirements of these developing oil and gas production markets. Our goal is to help you manage your process better using the latest in proven technologies. Our services offerings aim to reduce cost and improve performance throughout the life of the field, from development through operations.

#### **OUR LOCATION**

Equipment and Controls / SVA has general management and engineering project offices in Morro Bento, Luanda, maintenance site services offices in Malongo base Cabinda, and a workshop with offices in Kwanda

#### **Activities at various locations:**

#### LUANDA

- Management
- HR & Logistics
- Project Management
- Training

Pump Repairs

Mechanical Seal Refurbish Work Shop

#### **CABINDA MALONGO**

- Valve Work Shop
- Instrumentation Maintenance and Support
- SOYO KWANDA BASE Mechanical Work Shop
- Instrumentation Maintenance and Support
- Mechanical Seal Refurbish Work Shop

## **ENGINEERING SERVICES OFFERED IN ANGOLA**

In addition to representing best in class manufacturers, Equipment & Controls / SVA offers a wide range of support services to support its customers via a pool of highly skilled technicians and engineers. SVA has a mechanical workshop at Soyo & managing a mechanical workshop at Malango for Oil & Gas operators:

## **Mechanical Services**

- Ÿ Pressurised Safety Valve (PSV) maintenance, repairs and compliance testing.
- Ÿ Control valve maintenance and repair
- Ÿ SDV/BDV maintenance and repairs
- Ÿ Pump maintenance and repair
- Ÿ Mechanical seal maintenance and refurbishment.
- Ÿ HVAC maintenance and support
- Ÿ Turbine and Compressor advisory services
- $\ddot{Y} \quad \text{Machinery Health Monitoring} \text{Condition monitoring of rotating equipment}$
- Ÿ Offshore turnaround valve maintenance
- Ÿ There are also portable safety relief valve calibration and testing facilities, suitable for offshore mobilization, a portable machine shop equipped with machine tools for repairing valves up to 8 inches.

#### CONTROL SYSTEM & INSTRUMENTATION SERVICES

- Ÿ Instrument & Controls system construction services (installation, wiring, piping/tubing, calibration, commissioning, etc.)
- Ÿ Trained and Certified system engineers for installation, commissioning and startup of Distributed Controls Systems, Safety Instrumented System and Fire and gas systems, SCADA, PLC's and HMI's.
- Ÿ Plant commissioning assistance
- Ÿ Third party integration support for communication with other vendor equipment using OPC, Serial and Profibus connectivity.
- Ÿ Specialist post startup services like tuning for process optimization, process stabilization, increased throughput and efficiency, alarm management.
- Ÿ On site upgrades of obsolete hardware/software and upgrades to new software revisions.
- Ÿ Control system engineering, detail design, configuration and programming, testing, cabinets wiring & testing, installation, commissioning and after-sale support.
- Ÿ Fire & Gas, safety system engineering, detail design, configuration and programming, testing, installation, commissioning and after-sale support.
- Ÿ Engineering documentation & ACAD support
- Ÿ Long term maintenance contracts for control systems, instruments, and valves
- Ÿ Instrument & electrical maintenance, calibration and repair
- Ÿ Fire & Gas system support services

#### TRAINING SERVICES OFFERED IN ANGOLA

Equipment and Controls has brought Process Control training closer to users in West Africa. Equipment & Controls / SVA has established a Training Centre at its Luanda Offices, equipped for customer personnel training on all aspects of Control Systems, and associated Field Instruments and Control Valves. Training Courses can be provided in line with INTERNATIONAL standard course content, using either customers own hardware, or Equipment & Controls / SVA training hardware. Standard Courses can also be tailored to meet specific customer requirements for Operators, Supervisors, and Maintenance personnel. Equipment & Controls has also developed custom training modules to suit the requirements of its customers.

#### Equipment & Controls / SVA provides following training services in Angola.

- Ÿ Facilitate basic Instrumentation & controls training
- Ÿ Basics Control & Safety System
- Ÿ Customized trainings per client's requirement
- Ÿ Vendor supplied training courses on client request
- Ÿ Control valve
- Ÿ Pressure Safety valve
- Ÿ Mechanical Seal
- Ÿ Lean Six Sigma quality improvement training
- $\ddot{Y} \quad \text{On-Job mentoring for engineers, technicians and operators, related to control valves, instrumentation,} \\$ safety relief valves, communication technologies, fire and gas systems, fire suppression systems, asset management, tank gauging, and related process and control equipment.













# **INTEGRATED SOLUTIONS**



### PRESSURISED SAFETY VALVE (PSV) & VALVE SERVICES



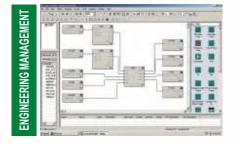
- Expert technicians in valve and actuator repair services
- Assist to increase your facility reliability, availability & minimizing downtime
- Documentation and record keeping with ECCI/SVA Asset Management Program
- Mechanical Inspection-Providing detailed reports of mechanical conditions



- Shut Down Planning-Helping to reduce outage or turnaround times
- Onsite Repairs-Bringing resources and equipment to the site
- Troubleshooting-Identifying root causes and providing solutions Site Surveys-Gathering data throughout your plant for asset management



- Single point Project Management & Execution under one roof
- Contract management and Procurement
- Scope and Change Management
- Cost, quality and schedule management
- Budgeting, manpower & resource planning with modern Project management tools



- DCS, SIS/FGS, SCADA and PLC System engineering
- Tank Gauging & Custody transfer Systems
- Functional Design, Detailed Design, Prototyping and documentation
- Panel design, assembly & testing
- Software configuration, programming and
- Advanced control technology implementation



- Startup & commissioning of DCS, ESD, FGS & SCADA systems
- Field Instrumentation Startup
- Asset management Services
- Condition monitoring of rotating equipment
- Process Optimization & Stabilization



Site Surveys

FRONT END DESIGN

- Budgetary proposals
- Feasibility studies, modernization and upgrade assessment
- Front end engineering design



- DCS, SIS, AMS and Foundation FieldBus training
- Custom courses as per client requirements On-site training
- Certified Instructors with modern training facilities & equipment



- Maintenance, Calibration and Repair of Instrumentation, Valves and Metering Systems
- Annual Maintenance Contracts for PAS, SIS and FGS Systems
- 24/7 support with rapid mobilization in emergency
- Spares Management and Support

## **CONTROL VALVE SERVICES**

- Specializes in the repair of control valves including lapping & bench testing
- Complete analysis of a valves operation thru diagnostics and calibration
- Control valve sizing & selection

- All assemblies are fully disassembled, inspected, cleaned, soft goods replaced, reassembled, painted and tested to meet ANSI and API standards.
- Documentation and record keeping with ECCI/SVA Asset Management Program
- 24 X 7 one stop shop for all aspects of control valve maintenance.

#### **PUMP REPAIRS**



- Predictive maintenance: improve reliability of rotating equipment using vibration analysis and thermography
- Preventive maintenance : Assess each individual component including impellor, volute, terminal boxes to ensure the components are in a serviceable condition.
- Overhaul and repair of all types of pumps
- Laser Alignments



- Rotor Balancing
- Pump and related material upgrades
- Installations and commissioning
- Outside field services including on-site repair and maintenance
- Documentation and record keeping with ECCI/SVA Asset Management Program 24 X 7 one stop shop for all aspects of pump maintenance.

## **SEAL SERVICES**



- Completely disassemble
- Clean all parts ultrasonically , waterblast/ beadblast and inspect for damage
- Polish and lap the recoverable seal faces
- All lapping and polishing done to within one monochromatic light band
- Replace all elastomers and none compliant parts
- Reassemble and test
- Protectively package















OUR CLIENTELE



EDG





















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