



*Scheck*  
Technical Services

instrumentation and process control

SAFE ▲ INNOVATIVE ▲ FIELD TESTED ▲ DEDICATED ▲ EXPERIENCED



[www.GoScheck.com](http://www.GoScheck.com)



# instrumentation and process control



## **Scheck Technical Services** **A Scheck Industries Company**

**Scheck Technical Services (STS)** is one of the largest full-service instrument contractors in the country with extensive hands-on trade and management experience. Our personnel are skilled in both electronic and mechanical disciplines. We take pride in our ability to meet project schedules and exceed the expectations of our customers. Our experience and skills combine to provide our clients premier service with deep domain expertise. We provide new construction services, plant maintenance contracts, supplemental manpower for outages and plant turn-arounds.

### **Industries we serve include:**

- ▲ Refining
- ▲ Food Processing
- ▲ Petro-chemical
- ▲ Mining
- ▲ Pharmaceutical
- ▲ Fossil Power
- ▲ Co-generation
- ▲ Chemical
- ▲ Steel
- ▲ Pulp & Paper
- ▲ Automotive
- ▲ Air Separation
- ▲ Nuclear Power

### **Project Controls**

All Scheck Projects are managed using proven techniques that have been fine tuned over the years. These include:

- ▲ **Instrument Procurement and Inventory Control (Care Custody and Control)** – We can provide complete instrument inventory management. If required, we can inventory, store and control the distribution of all loose process control instruments.
- ▲ **Document Control** – We catalogue and control all instrumentation documents from drawings to calibration data sheets. This function can also include the creation of “Instrument Turnover Packages” which are written checklists, by loop or by system, detailing compliance of all owner requirements.

- ▲ **Scheduling** – Detailed schedules can be provided assisting the management teams in assigning the work and tracking progress.
- ▲ **Cost Control** – Larger projects may require advanced cost control measures that could include productivity tracking, dedicated onsite material purchasing, and expenditure reporting against proposed budgets.
- ▲ **Punch List** – Many customers require STS to create post installation ‘Punch Lists’ of the overall instrument installations regardless of the installer. STS routinely performs this function, providing a thorough review of both in-line and remote instrument installations by an STS supervisor or field engineer. Items found to be out of compliance, damaged, lacking documentation or partially installed, are itemized and recorded by STS for submittal to the customer.

### **Mechanical Disciplines**

Scheck Technical Services can provide the mechanical installation of all process instrumentation. STS accomplishes this installation with highly trained personnel experienced with control system installations.

The types of devices we install include:

- ▲ Instrument stands and supports
- ▲ Flanged or threaded direct mount instruments
- ▲ Environmental enclosures
- ▲ Process tubing including pre-insulated, traced multi-tube bundles
- ▲ Capillary type process sensing lines
- ▲ Air drops (air supplies)
- ▲ Tube tray or raceway
- ▲ Conduit for poly-tubing
- ▲ Steam trace tubing
- ▲ Sample systems and panels

### **Technical Disciplines**

**Scheck Technical Services** can provide Certified Process Control Technicians for new construction or maintenance.





**Instrumentation Services we perform:**

- ▲ **Instrument Verification** – This step involves checking all process controls against customer purchase orders to verify the instrument matches the purchase order and has not been damaged in shipment. This can be done in conjunction with the STS Care Custody and Control program.
- ▲ **Bench Calibration** – This critical step involves verifying all set points, outputs, and ranges against the design criteria prior to installation. Each instrument receives a five-point check to make sure it performs to owner specification. All control functions are checked, and if required, set points are programmed. Even “factory calibrated” instruments are checked since shipping and handling can often disturb the settings. Bench calibration allows for a smoother progression in later phases of work such as loop check and start-up. There will be less chance of costly system upsets and delays caused by malfunctioning or non-calibrated hardware.
- ▲ **Loop Check** – This step involves signal checks after installation. Technicians go into the field and send actual signals from each transmitting device back to the controllers and from the controllers to the final control element. This can be accomplished using simulated signals (dry) or by filling the system with inert fluids or gases to simulate the actual process conditions (wet). Loop checks let the owner know everything has been installed properly, is functioning and ready for start-up.
- ▲ **Start-up & Commissioning** – The final step in the process is start-up. Having verified all loops and control functions the technician can now “start-up” each system. This is accomplished with engineering support from the owner or owner’s representatives. Specialty vendors may also be called in to support any non-conventional hardware.

Each step of this process is documented per owner requirements. All calibration test standards are certified by an independent calibration laboratory and are traceable to the National Institute of Standards and Technology (N.I.S.T.).

**Preventive Maintenance Services**

**Scheck Technical Services** has expertise in the maintenance of process control related equipment using a wide variety of applications (analog, digital, pneumatic, hydraulic, programmable logic control, distributed control systems).

Instrument brands we have serviced include:

- ▲ Foxboro
- ▲ Honeywell
- ▲ Bailey
- ▲ Micromotion
- ▲ Many others
- ▲ Rosemount
- ▲ Omron
- ▲ Fisher & Porter
- ▲ Masoneilan

Our client’s instrumentation is monitored by data tracking software that will indicate due dates and trends in calibration errors. **Scheck Technical Services** can support most ISO9000, QS9000 and AALA industrial requirements. Scheck Technical Services adheres to ISA (Instrument Society of America) and ANSI/NCSL Z540-1-1994 (formerly MIL-STD 45662A) standards. **Scheck Technical Services’** calibration data reporting system provides all necessary documentation.

**Quality Control**

**The Quality Systems Program** describes the control procedures implemented by **Scheck Technical Services** ensuring the quality of instrument control installation or maintenance. It documents how we:

- ▲ Certify all Test Equipment to NIST standards
- ▲ Document all Activities
- ▲ Handle Non-Compliant Controls
- ▲ Control Documents
- ▲ Inspect and Pressure Test Installations
- ▲ Ensure Correct Installations

**Additional Services Provided**

- ▲ Augmentation of In-House Maintenance Staff
- ▲ Off Site Warehousing
- ▲ Post Hydro Test Instrument Restoration
- ▲ Utility and Trim Piping
- ▲ Steam Tracing





## safety, health & environmental standards

Scheck Industries has established a culture upholding the highest Safety, Health, and Environmental Standards achieving an injury and incident-free environment on every project. Scheck Industries believes all injuries are preventable and no injury is considered acceptable. The Protection of Safety, Health, and the Environment is Scheck Industries' highest priority and we strive to develop a workplace where all employees continuously improve SH&E performance.

### Management Involvement

The owners and upper management of Scheck Industries lead and participate in Scheck's program to prevent workplace injuries. They meet regularly as the Corporate Safety, Health, & Environmental Planning Committee with the Director of Corporate Safety, Health, Environment, & Risk Management.

### Full Time Staff

Headed by the Director of Corporate Safety, Health, Environment, and Risk Management, and other full time SH&E Professionals, as well as a staff of site SH&E Managers and Engineers, Scheck provides its workforce with the procedures, training, field support and auditing required to exceed the demands of our projects.

### Off the Job Safety

Scheck Industries is a proud member of the National Safety Council utilizing their resources both on and off the job. Family Safety & Health Magazine, published by the National Safety Council, is sent to the homes of all Scheck Industries' employees. This teaches and reinforces the message "Keep Safety a Part of Everything we do, both on and off the Job".





# planning & project control

Scheck Industries developed its own Internet-based remote time entry and cost tracking system that is fully integrated with our Earned Value Management System. **ScheckTrac**, is the result of 25 years of management enhancement aimed at exceeding our own needs and those of our clients.

**ScheckTrac** has evolved into a multi-faceted cost accounting and project control system, providing Scheck and our clients with real time cost tracking, seamless one time payroll entry, state of the art productivity tracking, absentee analysis and other customizable data tracking functionality. **ScheckTrac** can integrate electronically with virtually any Windows compatible software. As a web based solution, **ScheckTrac** provides our clients with instant access to critical

information required to manage cost and to enhance client awareness of progress. Project performance measurement is accomplished through strict work processes including our **ScheckTrac** Commercial Control and Tracking System which provides objective quality data throughout a project's life cycle.

### ScheckTrac – Project Control System

- ▲ Construction Pre-Planning and Scheduling
- ▲ Focused Project Execution
- ▲ Effective Management and Control Processes
- ▲ Insightful Accurate Reporting
- ▲ Promotes Aggressive Team Building
- ▲ Computerized Project Control
- ▲ Real Time Cost Analysis



The screenshot displays the ScheckTrac web interface. On the left is a navigation menu with options: Home, Company/Client, Setup, Employee Setup, Equipment, Purchase Orders, Expenses, Daily Entry, Track Progress, Reports, Export, Standard Forms, and System Settings. The main content area shows a search and filter section with fields for Job Number (011155250), Work Dates (2/8/2011 to 2/13/2011), Shift (1), and Crew (1). Below this is a table for filtering records by Employee, Pay Code, Bill Code, ST, OT, DT, PayID, Absent, Per Diem, Task Type, Cost Code, Obj Code, Task / Subtask, and Crew. A data table lists employees: Tom, Joe; Zabicki, Casey; Biekeman, Larry; and Towmond, Sean, with columns for Type, Task ID, Absent, Task / Subtask, ST, OT, and DT. The ScheckTrac logo is prominently displayed in the center.

ScheckTrac Interface Module Sample



## complete client satisfaction

### Field Tested Leadership and Project Management

Scheck Industries, its senior management, and field supervisory teams is comprised of individuals with advanced education, training and experience in specialized industrial construction. Scheck Technical Services (STS), founded by Rich Scheck, has excelled in the field of instrumentation and process control contracting for over two decades. This family-owned and operated Company is a founding member of the Instrument Contracting and Engineering Association (ICEA). STS has been proactive in creating education programs, developing training procedures and funding to expand growth and optimize instrumentation related services to facility owners across the country. The Senior Management Team for STS each possess over thirty years experience in the fields of instrumentation and contracting services.

The Scheck Family, which includes second generation management, remain actively involved in the daily operations of STS on projects throughout the country as well as national and local advocacy groups for education, recruitment, and ongoing industry development.

Your Company was the first contractor that we utilized to provide extensive instrument support that was needed as our plant resources were insufficient to support a project of this magnitude. Scheck Technical Services showed the ability to provide quality instrument support that was effective in multiple efforts.

Thank you for your fine efforts.

**James M. Nelson**  
*Refinery Manager, Marathon Petroleum Company*

Scheck Industries management resources are fully integrated. Project Teams have been trained across all our national market segments giving our organization flexibility to resource project specific challenges.

### Innovative Industrial Solutions

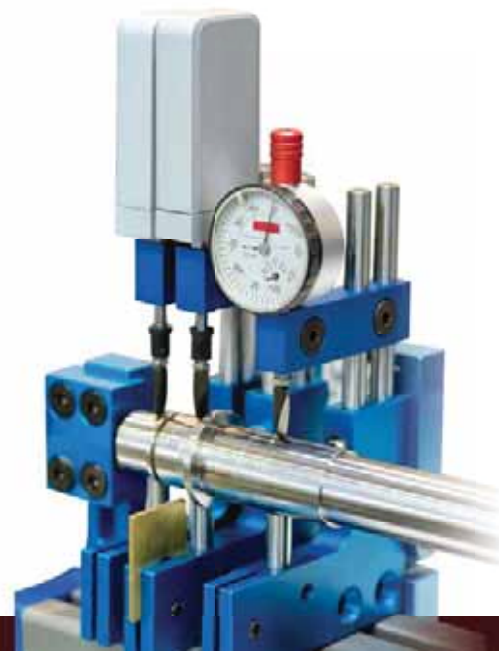
Scheck Industries has developed a customized project management platform with real-time control processes for all its projects.

### Corporate Resources

- ▲ Regional offices throughout the country
- ▲ Database of over 8,000 skilled crafts people from multiple trade disciplines
- ▲ Database of over 1,000 instrument technicians

### Diversified Growth

The organization has grown by reputation and repeat business providing its customers, the world's largest EPCs and many of the Fortune 500 Companies, the economies of scale with multi-jurisdictional labor sourcing they require.





## our clients

### Power

Ameren Corporation  
 Calpine Corporation  
 CMS Energy Corporation  
 Consumers Power  
 Dominion Resources, Inc  
 Duke Energy Company  
 Exelon Corporation  
 General Electric Company  
 Midwest Generation, LLC  
 Mirant Corporation  
 NIPSCO, a division of NiSource Inc  
 Public Service Enterprise Group (PSEG)  
 Southern Illinois Power Cooperative  
 Wisconsin Public Service (WPS)

### Refining

BP p.l.c.  
 CITGO Petroleum Corporation  
 Conoco Phillips Company  
 Exxon Mobil Corporation  
 Flint Hills Resources  
 Marathon Oil Corporation  
 Sunoco, Inc.  
 Total S.A.  
 Valero Energy Corporation

### E.P.C. & Engineering

The Shaw Group Inc.  
 Ambitech Engineering Corporation  
 Bechtel Corporation  
 Black & Veatch Holding Company  
 Bowen Engineering Corporation  
 Burns & McDonnell  
 Burns and Roe Enterprises, Inc.  
 Chicago Bridge & Iron Company  
 Fluor Corporation  
 Foster Wheeler AG  
 Jacobs Engineering Group  
 Middough Inc.  
 Mustang Engineering Inc.  
 PCL Constructors Inc.  
 Sargent & Lundy LLC  
 SNC-Lavalin Group Inc  
 URS Corporation

### Alternative/ Renewable Energy

Archer Daniels Midland Company  
 Fibrowatt LLC  
 Global Ethanol (Green Plains Renewable Energy)  
 Hemlock Semiconductor Corporation  
 Heron Lake BioEnergy, LLC  
 Midwest Grain Processors Co-Op  
 Poet, LLC (Broin Companies)  
 Prairie Ethanol (Poet, LLC)  
 ProCorn Ethanol (Poet, LLC)  
 Renew Energy (Valero Energy Corp.)  
 Ultimate Ethanol (Poet, LLC)  
 Utica Energy LLC  
 Waste Management, Inc.

### Chemical

Air Products and Chemicals, Inc.  
 Akzo Nobel NV  
 Borden Chemical, Inc.  
 Dow Corning Corporation  
 Evonik Degussa Corporation  
 International Titanium Powder  
 Koppers Inc.  
 Nalco Company  
 Owens Corning Inc  
 Safety-Kleen  
 The Dow Chemical Company  
 Unichema North America, Inc, USA  
 Union Carbide Corporation

### Food and Beverage

Cerestar USA Inc., Cargill, Inc.  
 Corn Products International Inc.  
 Kellogg Company  
 Kraft Foods Inc.  
 Nabisco  
 Nestlé USA, Inc.  
 Pillsbury  
 Plochman, Inc.  
 Unilever Bestfoods

### Pharmaceutical

Abbott Laboratories  
 Abraxis BioScience  
 Pfizer, Inc.

### Pulp and Paper

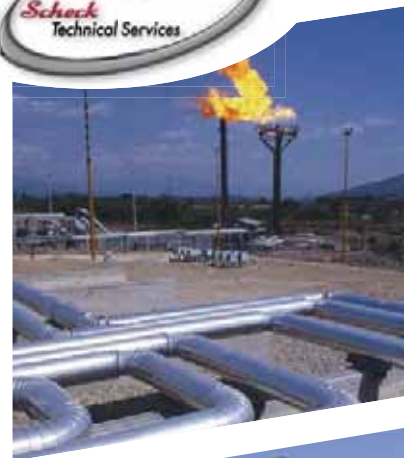
Appleton Coated LLC  
 Boise Cascade, LLC  
 Borregaard LignoTech  
 Cellu Tissue Holdings Inc.  
 Champion International Corp.  
 Encore Paper Company, Inc.  
 Fax Paper Pigments A/S  
 Georgia-Pacific LLC  
 Kerwin Paper Company  
 Kimberly-Clark Corporation  
 Michigan Paperboard Company  
 NewPage Corporation  
 Rhineland Paper Company  
 SAPPI Ltd.  
 Smurfit-Stone Container Corp  
 Stora Enso Corp.  
 Thilmany Papers  
 UPM, Blandin Paper Mill  
 UPM, Madison Paper Company  
 Wausau Mosinee Paper

### Mining

Cleveland- Cliffs, Inc.  
 Holcim  
 Northshore Mining Company  
 United States Steel Corporation – Keetac Mine  
 United States Steel Corporation – Minntac Mine

### Other Clients

Argonne National Laboratory  
 Bon-Ton Stores, Inc.  
 Brookfield Zoo  
 Centerpoint Properties  
 Charter Manufacturing Company, Inc.  
 Chicago Public Schools  
 Gas Technology Institute  
 Severstal NA  
 Thermal Chicago Corporation  
 Yankee Gas Services Company





## locations

### **Scheck Technical Services**

2404 Reeves Road  
Joliet, IL 60436  
ph (815) 773-9302

### **Scheck Technical Services**

7100 Tower Road  
Battle Creek, MI 49014  
ph (269) 968-5201

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## services

Industrial and Power Piping  
Pipe and Modular Fabrication  
Boiler Services

Instrumentation and  
Process Controls  
Facility Maintenance  
HVAC Service and Maintenance

## markets

Power  
Petroleum and Refining  
Pulp and Paper  
Food and Beverage

Healthcare  
Renewable Fuels  
Chemical and Petrochemical  
Pharmaceutical