

K&B ENGINEERING, INC

Engineered Sales - Manufacturers Representative

www.kb-engineering.com

Products for the Power / Utility Market

Products for the Power / Utility Market

Siemens-Robicon
AirStream Systems (ASI)
Eimco Water Technologies (EWT)
Greenbank Energy Solutions Inc. (GESI)
Air Heater Seal Company
Advanced Acoustic Technologies (AAT)
Energy Systems Associates (ESA)
Southern Environmental Inc. (SEI)
Envirocare International
Conforma Clad (CCI)
CTI Industries (CTI)
Damper Company of America (DCA)
Welding Technologies Inc. (WTI)
API Heat Transfer
Munroe
Munters Corporation
Norflex
CBP Engineering
Southwestern Corporation (SWC)

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ENERGY SAVINGS PRODUCT LINES

SIEMENS

Siemens - Robicon

www2.sea.siemens.com

Siemens-Robicon Large Drives Division (formerly ASI Robicon) is the recognized world-wide leader in medium voltage (MV) variable frequency technology featuring the Perfect Harmony series of drives for large induction and synchronous motors. Siemens has the largest installed base of MV drives. Applications in the utility industry include forced draft (FD), induced draft (ID), primary air (PA), and booster fans on power boilers, and boiler feed (BFPs), circulating water (CW), and condensate pumps. Benefits include increased reduced auxiliary bus load for more station availability, improved heat rate, and improved control of the various processes within the utility cycle. The Harmony, and the recently introduced MicroHarmony with the smallest MV footprint drive in the industry, features the Advanced Cell Bypass and the ProToPS (process tolerant protection strategy) to give the Robicon Harmony unparalleled drive reliability. The Harmony modular cell-based technology provides an inherent soft-start feature to protect motors and driven equipment on start-up. The Harmony has the reputation as the world's most versatile MV drive and is compatible with any existing motor – regardless of age, brand, and voltage. The Harmony topology does not require input or output filters and improves motor operating power factor to near unity for induction motors.

AIRSTREAM
www.airstreaminc.ca

AirStream Systems

www.airstreaminc.ca

There are inherent inefficiencies of large process air/gas fans...often times the fan operating efficiency is far from the fan manufacturer's stated test block efficiency...this is due to mismatches between the fan performance curve and the "system resistance" curve... (poor aerodynamic inlet duct/box design can also be a contributor to poor fan performance)... centrifugal fans do not compensate for these mismatches and the fan therefore operates to the left or right of the design system resistance curve - well below the optimum (or test block) efficiency of the fan.... AirStream Systems is a fan consulting company with fabrication capabilities which specializes in upgrading existing fans... the benefits of an upgraded fan are greater performance, reduced energy consumption, increased flow capacity, and reduced wear characteristics (on dirty gas/air applications)... the typical (preferred) approach of AirStream is a turnkey project installation... they can fully guarantee the enhanced performance of the retrofit fan wheel into an existing system.

EIMCO
WATER TECHNOLOGIES

Eimco Water Technologies

www.glv.com

Brackett Green WSA is now part of EWT, a global supplier of liquid/solid separation solutions for municipal, utility, and industrial water and wastewater as well as large scale water intakes. With the acquisition of BG-WSA & BG-USA, EWT offers:

- BG Ball Type ATCSs (on-line, automatic tube cleaning systems)
- BG HRDFs (half radius debris filters)
- WSA B&Bs (on-line, brush & basket auto tube cleaning systems)
- Brieden Fully Auto Strainers (with the patented "breathing element")
- 316B Fish handling traveling band screens
- Dual flow, thru flow and conversion screens
- Bosker Auto trash rakes
- Static Screens
- Fish Deterrent Technologies

COMBUSTION / PERFORMANCE OPTIMIZATION LINES

GREENBANK
Enhancing Performance

GreenBank Energy Solutions

www.greenbankenergy.com

GreenBank Energy Solution Inc. (GES) utilizes on-line coal flow measurement to accurately measure fuel and velocity in coal (burner) pipes. GESI utilizes VARB technology to break coal "ropes" to provide balance of primary air and fuel to optimize burner-to-burner combustion stoichiometry. GESI products include:

- PfMaster Coal Mass Flow Measurement systems for PC fired boilers
- VARB (Variable Area Rope Breaker) technology for pipe-to-pipe fuel line balancing
- G-CAM Carbon-In-Ash monitors
- LA 202 Boiler Acoustic Steam Leak Detection systems

COMBUSTION OPTIMIZATION LINES (continued)



Air Heater Seal Company

www.airheaterseal.com

Air heater seals for regenerative-type air pre-heaters featuring flexible, full contact seals for radial and circumferential seal applications.... Seal materials include high alloy stainless and carbon steel... OEM replacement seals are offered as well as sector plate transition bars.... Also offered are heavy duty dampers (louver, guillotine, butterfly) and expansion joints (metallic and non-metallic)....



Advanced Acoustic Technologies

www.soniccleaning.com

WaveMaster™ Acoustic Cleaning Systems for removal of fly ash in regenerative air heaters, economizers and other boiler surfaces...not to be confused with sonic horns which have limited cleaning effect. The WaveMaster uses low frequency sound waves which work on the flue gas to prevent accumulation of fireside deposits. Effects of cleaned surfaces are improved thermal efficiency, reduced flue gas differential and reduced (or elimination of) off-line cleaning...CFD modeling incorporated on every utility boiler installation.

ENVIRONMENTAL PRODUCT LINES



Energy Systems Associates

www.energysystemsassoc.com

ESA is an air pollution control company which specializes in CFD (computational fluid dynamic) modeling based designs for emissions reduction of utility and industrial boilers and other fired equipment. Their products include OFA (over fire air) systems and SNCRs (selective non-catalytic reduction) for NOx reduction of PC-fired, stoker, and cyclone boilers. SNCR experience includes ammonia and urea reagent injection. Coal fuel burner and nozzle design and nozzle redesign through CFD modeling as well as third party analysis of LNB (low NOx burners) installation are included within their vast project experience. Other CFD modeling projects include flow modeling of fired kilns and various air/gas flow modeling within windboxes and ductwork.



Southern Environmental

www.southernenvironmental.com

SEI is the leading aftermarket services and components supplier for electrostatic precipitators (ESPs). SEI specializes in all facets of ESP upgrades and rebuilds including their SEI/ELEX rigid discharge H.V. electrodes (RDEs), wide plate spaced upgrades, enhanced electrical sectionalizing, plate and H.V. electrode (wires, RDEs) rapping upgrades, and high frequency TR set installations. SEI also offers a wet membrane electrostatic precipitator (WESP) for specialized applications in the utility and industrial markets. SEI also offers a "Parts On-Line" Program to ease with parts management for ESPs.



EnviroCare

www.envirocare.com

EnviroCare offers: MicroMist evaporative gas (humidification cooling) engineered systems for enhanced APC (air pollution control) equipment performance including ESP's (electrostatic precipitators), PM (particulate matter) scrubbers, and FF's (fabric filters-baghouses); Acoustic Horns for dust removal in bag FF's, ESP's, ducts, boiler fans, MDC's (mechanical dust collectors) and fans; MicroMist ML MicroFine lime semi-dry injection system for SO₂ removal and reactive plume abatement technology.

MAINTENANCE IMPROVEMENT LINES



Conforma Clad

www.conformaclad.com

Conforma Clad (CCI) supplies coal-fired power plants and general industrial plants with wear resistant infiltration-brazed tungsten carbide claddings. Applications in the power market include protection for high temperature, severe wear service components such as burners, and burner nozzles, and boiler tubes. Other applications include fan blade liners, pulverizer components, ash equipment, coal raffles and popcorn ash screens.



CTI Industries

www.cti-ind.com

CTI Industries is a service company that specializes in condenser and heat exchanger repairs... exchanger restoration services include their trademarked Shield/Seals (tube inserts) and full length tube liners.... Applications include feedwater heaters, steam turbine condensers, turbine lube oil coolers, hydrogen coolers, component coolers, and evaporators in the utility industry... other applications include process heaters and coolers, condensers, and fin-fan units in the petrochemical industry, and various tubular exchangers in other applications ... additional services include inspections, cleaning, and epoxy coating of tube sheets.... Tube restoration procedures allow heat exchange equipment with a high degree of their tubes plugged to be completely restored to full service at a fraction of the cost of re-tubing.

Damper Company of America

DCA is a company which specializes in the "aftermarket" upgrade and repair of dampers giving much needed attention and service to the large installed base of damper systems in utility and industrial markets. Improving process air flow control through upgrades has become the trademark of DCA. DCA has field service engineers who perform inspections and provide supervision to various damper system upgrades. Specific upgrades include but are not limited to: purge air sealing systems (for pressurized isolation gate dampers on pulverizer isolation gates), mullion seal upgrades and bypass gate sealing upgrades for isolation gate dampers (zero or low leakage); flue gas recirc and other dirty process gas louver damper upgrades; gate drive "track" upgrades; actuator upgrades and retrofits. All styles of new dampers are offered including parallel and opposed louver, standard, low leakage, and zero leakage gate dampers, and butterfly and diverting dampers. New high temperature, corrosive gas, and severe service dampers are offered as well.



Welding Technologies

www.weldingtechnologies.com

Supporting the power generation (fossil and nuclear), petrochemical, and pulp and paper industries, Welding Technologies Inc. (WTI) provides a variety of shop and field weld repair, replacement or refurbishment of damaged plant equipment as well as fabrication of ASME parts and pressure vessels. WTI specializes in automation technologies for the installation of erosion and corrosion protection, as well as orbital state of the art systems for high quality production welds. WTI have a Quality Assurance / Quality Control Program which meets the requirements of ASME and the National Board Inspection Code, and maintain current ASME "S" and "U" certificates and a National Board "R" certificates.

MISCELLANEOUS PRODUCTS:

API Heat Transfer Products (www.apiheattransfer.com): shell and tube heat exchangers; plate and frame heat exchangers; air aftercoolers; turbine lube oil coolers; condensate coolers; API Basco; API Schmidt Bretten; API Ketema; API Whitlock.

Munroe Boiler Tube Company (www.munroeinc.com): waterwall boiler tube panels; superheater and economizer elements; boiler openings; headers; other fabricated pressure parts.

Munters Corporation (www.munters.com): drift eliminator modules for cooling towers; mist eliminators for particulate scrubbers.

Norflex, Inc. (www.norflexinc.com): metallic and non-metallic process air and flue gas duct expansion joints.

CBP Engineering (www.cbpengeering.com): abrasion resistant materials.

Southwestern Corporation (www.southwesterncorp.com): coal pulverizer rotating van wheel conversions; high performance static classifier upgrades.