

K+S SERVICES INC.

QUALITY REPAIR OF MANUFACTURING EQUIPMENT

WWW.K-AND-S.GLOBAL 1-800-542-1331

Quality Repair of Manufacturing Equipment Don't see what you are looking for? Give Us A Call! SOUTHGATE, MI TAYLOR, MI KOKOMO, IN SALAMANCA, MX APODACA, MX TAMWORTH, UK

1-800-542-1331 sales@k-and-s.com www.k-and-s.com

MONTREAL, QC

OŚWIĘCIM, PL

GENERAL ELECTRONIC REPAIR

With over 30 years of experience, our highly skilled Technicians can repair a large variety of General Electronics. We have the ability to dynamically bench test items from Amplifiers, Heat Controllers, Light Curtains to Power Supplies & UPS devices. K+S has the experience to provide a quality repair at a competitive price.

AMPLIFIERS

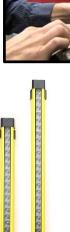
Bogen Crown Fanuc **Indramat** Mitsubishi Rauland-Borg Corp. Sciaky Yaskawa







Triad





ENCODERS

Absolute Accu-Coder - Allen Bradley - Autotech - Baldwin Balluff - BEI - CMC - Data Tech - Durant - Dynamic Research - Dynapar - Emerson Encoder Products - Fanuc Gemco - Guhley - Heidenhain Hensster - Litton - Namco Prab - Reliance - Sequential Sumtak - T&R Electronics Tamagawa Seiki - Unico -Yaskawa











LAWTON, OK
 ROCKY HILL, CT
 OAKVILLE, ON

SINT – TRUIDEN, BE

NAPAJEDLA, CZ



TEMPERATURE CONTROLLERS

Athena Barber Colman D.M.E. Eurotherm Fenwal Gammaflux Honeywell Leeds & Northrup L.F.E. Love Makon **Omegas** Omron **Partlow** Watlow West



POWER SUPPLIES

Abbott AC-DC Acopian **B&K** Precision Cincinnati DFC Fanuc General Electric Hewlett Packard Indramat Lambda LH Research NCR PMC. **Powermate** Powertec









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TAMWORTH, UK NAPAJEDLA, CZ SINT – TRUIDEN, BE OŚWIĘCIM, PL

AC / DC DRIVE CONTROL REPAIR

K+S has over 30 years of experience repairing all types of AC / DC frequency & servo drives. We have designed in our Engineering group, over 100 dedicated test stands to ensure a quality repair. In addition, we have also designed a special dynamometer that allows two motors to work against each other; this provides a dynamic load test allowing us to make performance and rating adjustments to exactly the right levels. Below is a list of the Manufacturers we are currently supporting globally within our repair labs.

ABB AC TECHNOLOGIES AEG ALLEN BRADLEY ALTIVAR BALDOR BAUMULLER BODINE ELECTRIC BOSCH BOSTON GEAR CAMCO CMC COMPUMOTOR CONTRAVES CONTROL TECHNIQUES CUTLER HAMMER DANFOSS DART DENSO



EATON/DYNAMIC **ELECTRO-CRAFT EMERSON FANUC FATA AGV FENNER FINCOR FUJI GE FANUC** GE **GETTY'S GOULD** ICC

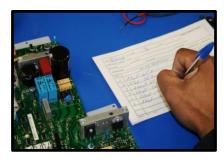
INDRAMAT INLAND KEBCO KOLLMORGEN LENZE **LOVEJOY LOUIS ALLIS MAGNETEK MINARIK MITSUBISHI MODICON** MOOG **MOTION CONTROL NIKKI DENSO NIPPON OMRON PACIFIC SCIENTIFIC PANASONIC PARAJUST PARAMETRICS**





Dedicated Test Stands

PARKER SUPERIOR ELECTRIC RAMSEY SWEO RELIANCE TECHMOTIVE SANYO DENKI TELEMECANIQUE SECO TOSHIBA SEIDEL **VEE-ARC SERVO DYNAMICS VICKERS SEW EURODRIVE** WARNER **SIEMENS WESTINGHOUSE SLO-SYN WESTAMP SQUARE-D WHEDCO STROKONSULT WOODS** SUMITOMO **YASKAWA**



A Thorough Evaluation is Completed on Each Unit







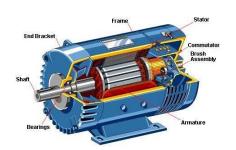




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AC / DC Motors

With over 30 years of experience, our highly skilled Technicians can repair and test your AC and DC motors. Whether it is a Drive Motor or a Blower, K+S has the experience to provide a quality repair at a competitive price.



DC Motor Breakdown



DC Drive Motor With Cooling Fan



DC Hi - Lo Motor





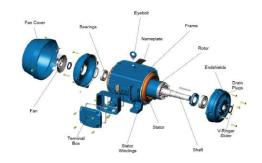




All Types of AC Induction Motors Supported



Motor Rewind Department



AC Motor Breakdown

- Most Major Brands Supported
- **Full Rewind Capabilities In House**
- **Factory Trained Technicians**
- Emergency Service Available
- Detailed Failure Analysis Reporting



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SERVO MOTOR REPAIR



Robotic Servo Motors

With over 32 years of servo motor repair experience, our highly skilled servo motor technicians can repair, align and dynamically load test your robot axis and base motors.



Machine Tool Servo Motors

Our expert Servo Motor technicians can provide quick turn around and efficient repair for your machine tool servo motors and spindle drive motors.



DC Permanent Magnet Servo Motors



At K+S Services, we specialize in problem solving. If your equipment is utilizing Permanent Magnet DC servo motors, we can help. We support most major brands and can handle all types of feedback devices installed on DC permanent magnet servos.



Additional Benefits

- Full rewind capabilities in house
- AC induction motor repair and service
- DC wound field motor repair
- Fork Truck motor repair
- Factory trained technicians
- Emergency service available



Dynamic load testing on all servo repairs

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CNC MACHINE CONTROL REPAIR

K+S has over 30 years of experience repairing a wide selection of machine control manufacturers. We have designed in our Engineering group, dedicated test stands to ensure a quality repair. Our CNC control lab has the dedicated test stands to repair the entire CNC control from the operator interface, spindle drive, power supply, CPU modules and the system I /O cards regardless if they are analog or digital. Below is just a brief overview of the Manufacturers we are currently supporting along with some of the system model numbers.

Allen Bradley

System: 7100, 7300, 8000, 8200, 8600

9 Series

Fanuc

System: O, 15, 16, 18, 21

Alpha HVI, Powermate A, D, Di, E

Servo Motors - A06B-0032 through A06B-6059

General Electric

Systems: 1050 & 2000

Indramat

System: CLM, DDC, DDS, DEA, DKC, DKR, DKS DLC, DSC, HDD, HDS, HVR, KDA, NAM, RAC, TAM,

Trans 01, TDA, TDM, TVD, TVM

Servo Motors: MAC, MDD, MHD, MKD, MKE, 1AD







System: Simodrive 611, 6RA, 6SC, 6SE

6SN, A1, 820, and 840D

Servo Motors: 1FT, 1HU, 1PH

Yaskawa

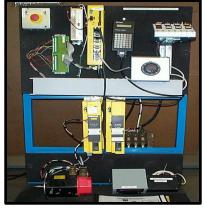
System: CACR, CDMR, CIMR, CMPC

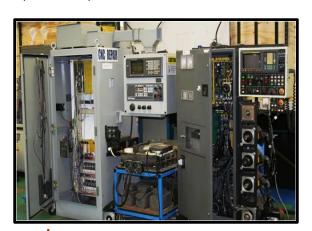
CMPF, CPCR, CPS, DR1, JANCD

Servo Motors: SGMGH, SGMP, SGMPH,

USADED, USAREM, USASEM









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INDUSTRIAL MONITORS / DISPLAYS / TERMINALS / HMI'S

ADVANTECH

ALLEN BRADLEY

AYDIN CONTROLS

BALL

CARDINAL

CINCINNATI MILACRON

CUTLER HAMMER

DAYTRONICS

DIGITEC

DIEC

DOTRONIX

EATON IDT

FANUC

GENERAL ELECTRIC

GIDDINGS & LEWIS



HITACHI **HMW IDEK** IDT INDUSTRIAL COMUTERS **KME LANDIS**

MATSUSHITA

MITSUBISHI MODICON MONITECH **NEC NEMATRON OKUMA PANASONIC SIEMENS**

SQUARE D STRUTHERS DUNN **TEXAS INSTRUMENT TEXTRONIX**

TOSHIBA

TOTAL CONTROL

PRODUCTS

TOYODA

UNIPO

USON

VIEWSONIC

WYSE

XYCOM

YASKAWA

MANY MORE...

THOUGHT ABOUT CONVERTING YOUR OLD CRT'S TO LCD TECHNOLOGY?

K+S offers a conversion that takes your old CRT monitors or NMI / HMI displays and replaces them with energy efficient LCD displays. Isn't it time to you thought about Going Green?

CRT Monitor – Disadvantages

- Lower Resolution
- Heavier to carry
- Requires special handling for disposal
- More parts than can fail
- Over 50% lower life expectancy
- Hazardous to our environment
- Requires more power



ALL UNITS ARE SYSTEM TESTED



LCD Display - Advantages

- Uses original chasses
- Safe for landfills
- Cost effective conversion
- Requires less power
- Over 200% increase in life expectancy
- Over 80% lighter than CRT's
- No special disposal needed
- Higher resolution brighter



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PROGRAMMABLE LOGIC CONTROLLERS

K+S has over 300 fully functional test stands which allows our Technicians the ability to fully system test every repair. This ability allows us to simulate how the unit will perform within a plant environment along with being able to check for elevated temperature faults.

Allen Bradley

PLC - 1774 Series

PLC-2 Family

PLC 2 Mini, 2/05, 2/15 2/16, 2/17, 2/20, 2/30

PLC 3 Family

PLC-3 & 3/10

PLC 4 Microtrol

PLC 5 Family

5/10, 5/11, 5/12 5/15, 5/20, 5/25, 5/30 5/40, 5/40L, 5/60, 5/60L, 5/80

PLC-5/250 Pyramid

SLC Family

100, 150 & 500

Micrologix Series

1000 & 1500

Peripheral Items 1791 Series I/O

1770-SA 1770-SB 2700 Series 2755 Barcode Family 2803 Vision System All Starlinks

Advisor

Advisor 2

Advisor 2+

Intelligent Antenna **Intelligent Panel System**

ALL UNITS ARE SYSTEM TESTED

M-10 Mass Storage

M-11 Mass Storage

M-12 Mass Storage

AUTOMAX / RELIANCE

AMX 6010, 6011, 7010

DCS 5000

BAILEY

INFI 90

BARBER COLMAN

Edac Maco IV

Maco V

Maco VI

Maco 8000

CINCINNATI-MILACRON

Apc-1 & 500

CUTLER HAMMER

D-100, 200 & 500

GENERAL ELECTRIC (FANUC)

90/20, 30 & 70 Series Series One, One Jr., Three, Six, Six Plus PiC 409 / 49



HONEYWELL

620-10, 15, 16, 20, 25, 30 & 35 Series

621 Series I/O System **ICP 622**

ISSC /IPC

90 & 300 Series

MITSUBISHI

F1 & F2 Series Series "A", "Ann" & "Q"

MODICON

184, 384, 484, 584, 884 & 984 Family Compact 984 Micro 84

Micro 984 PC0984

Quantum Series



OMRON

S6 Series

Sysmac

C20, C40K, C200H & C210

RELIANCE

Automate

15, 20, 30 & 40 Series

Automax

AMX - 6010, 6011, 7010 DCS 5000

SHARP

W51

W100

SIEMENS

525, 535, 545, & 555 Series S5-110, 115 & 150



SQUARE D

100, 300, 400, 500, 700 & 8881 Series

TELEMACHNIQUE

TSX Series

TEXAS INSTRUMENTS

100 - 560 Series 5TI & PM-550

TOSHIBA

Ex-20 Plus

TOYOPUC

PC1, PC2 & PC3 Series

WESTINGHOUSE

PC 700, 900, 1100 & 1200

YASKAWA

Memocon SC684

SCR84

SCU84







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ROBOT MANIPULATORS & CONTROLLERS

K+S has installed numerous robotic manipulators and control diagnostics systems to facilitate complete system verification for a wide range of robotic components. Electrical devices ranging from CPU's, amplifiers, communications devices, teach pendants, power supplies, servo drives, I/O modules and operator interfaces. Mechanical items such as gear boxes, balancers, wrist assemblies and servo motors are repaired and fully tested for functionality. The diagnostics ensure full load and repeatability testing of all robotic repairs. Manufacturers include Fanuc, Motoman, ABB, Kuka, Nachi, Kawasaki and others.

Fanuc Control/Manipulator

RH/A200 RJ2/S420iF RJ3/S430iF RJ3iB/R2000iA RJ3/Arcmate 120i R30iA/R2000iA R30iB/R2000iB

ABB Control/Manipulator

S4C+/IRB6600 S4C/IRB6400 IRC5/IRB7600 S4/IRB6400 IRB/IRB1400

Motoman Control/Manipulator

MRC/K100 ERC/YR6 MRC/K30 XRC/UP6 NX100/HP175 DX100/HP175 XRCmini/S1M005

Comau Control/Manipulator

C3G+/Smart M1

Kuka Control/Manipulator

KRC2/KRC4/KR210

Kawasaki Control/Manipulator

AD/UX150 C32/ZX165U C52/ZX165U

Nachi Control/Manipulator

AX/SH200 AR/SA160 AW/SH166









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MONTREAL, QC

FANUC AND ABB WRIST REBUILDING

At our Hydraulic / Mechanical Division, our trained technicians will rebuild your worn ABB or Fanuc wrist assembly to like new condition for less than the OEM. Each wrist assembly is thoroughly inspected and rebuilt to OEM specifications. If your wrist includes servo motors, those too will be evaluated and repaired during the wrist repair. Each unit is fully tested to verify proper operation when installed in your robot.











Each wrist is completely disassembled. All components are cleaned and inspected. Each item is carefully prepped for reassembly. Each completed wrist assembly is fully tested prior to return to our customers.

MONTREAL, QC

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SERVO VALVE DEPARTMENT

The K+S Services Valve Department is well known for Servo valve and Proportional Valve support, with the capability to provide computer controlled dynamic and static testing. Our state of the art computerized load stands ensure that each valve meets OEM specifications. We also can handle your general purpose valves as well. Whether its Hydraulic or Pneumatic and controls Pressure, Flow, or Directional, please consider K+S Services your go-to valve support source for all of your valve needs.

Manufactures Supported

Atchley	Honeywell	Oil Gear	RVA	Vickers

Bosch HPM Olsen Schenck And Many More!
Bullard HR Textron STAR SLI
Cincinnati Hunker Moog Textron

Denison/Abex Kawasaki Parker Tokyo Keiki
Dowty Konring Pegasus Tokyo Precision

Dyval MTS Rexroth Ultra

Our Process

- Valve is disassembled and evaluated for wear and damage FREE
- Failure analysis report generated and repair quote provided FREE
- All components are thoroughly cleaned and damage components replaced
- Assembled units are load tested and test report created
- 12 month "In-Service "warranty provided with all repairs



Dedicated Run – In Stand



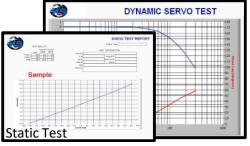
Torque Motor & Static Servo Testing



S K+S is the ONLY USA Authorized
Distributor of STAR Valves



Dynamic Servo Testing



Computerized Graphing

Clean Air Assembly Benches

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Dedicated Run – In Stand



Torque Motor & Static Servo Testing



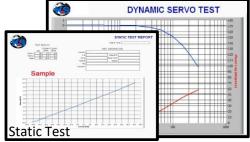
Dynamic Servo Testing



Clean Air Assembly Benches



K+S is the ONLY USA Authorized **Distributor of STAR Valves**



Computerized Graphing

MOOG

21, 22, 62, 72, 73, 76, 77, 78, 79, 760, A076, D631, D641, D644, D645, D760, D761, D765, E760, G761

PEGASUS

120, 121, 130, 131, 140, 141, 160, 161, 180, 1160, 1280, 1282

REXROTH

3DS, 4WR, 4WS, WRA, WRE, WRZ

STAR Family Series

200, 454, 455, 456, 458, 500, 502, 507, 550, 550E, 552, 553, 557, 558, 590, 592, 597, 60FC, 650, 652, 750, 890, 892, 897, 900, 1650, 1652, 1653

ULTRA

4550, 4551, 4657, 4658, 4661, 4683

VICKERS

EHST, KAFDG, SA4-03, SA4-06, SC4-03, SD4-03, SF4-03, SH4, SM4

Additional Manufacturers

Supported

Atchley Konring Bosch Oil Gear Bullard Olsen Cincinnati Moog Denison/Abex Parker Dowty Rexroth Dyval **RVA** Honeywell Schenck **HPM** SLI **HR Textron** Textron Hunker Tokyo Keiki Kawasaki **Tokyo Precision**

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Star Servo Technology

TAMWORTH, UK



K+S Services is the only authorized distributor and service center for Star Hydraulics, Ltd. in the USA.

Star designs and manufactures high quality electro-hydraulic servo valves and associated equipment, which are used in a wide variety of market sectors. The key to the success of the company is the many years of servo engineering development which enables customers to gain consistent operational life capacity. With Stars Sapphire Technology, we are undertaking upgrades of Simulator, Industrial, Aerospace and Military applications around the world. K+S and Star see this appointment as a key development for the improvement of operational life for this type of equipment utilizing Star products, features and benefits while providing many drop-in replacements in these key sectors.



Electronics: Servo Amplifiers, Custom Built Controllers. Hand Held Testers







Associated Equipment: Flushing Blocks, Manifolds, Adapter Plates, Override Modules



Many of Stars servo valves are manufactured with inlet orifices and feedback wire that include the Sapphire Technology. The benefit to the operator is that the traditional inlet and ball wear erosion problems that have been seen in the past are now just that, a thing of the past. These features enable Star servo valves to deliver and maintain higher performance for extended periods without failure. This extended operational life results in reduced costs for the end user.

K+S became part of history when a large aerospace company launched their rocket into space with a successful return back to earth by supplying & supporting the Star servo valves that are used on the gimbal controls for the nine engines...Has your repair partner been to Space and back? At K+S, our quality and performance is out of this World!





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HYDRAULIC COMPONENT REPAIR

With over 30 years of experience, our highly trained technical specialists are dedicated to providing our Customers with quality repairs on hydraulic pumps, motors, cylinders, rotary actuators, proportional valves, servo valves and other industrial hydraulic items. K+S has developed and constructed test systems designed to properly test repair components under load. Once the repair has been completed, each item is rigorously tested on specially designed test stands to verify proper operation and that it meets or exceeds OEM specifications.

MOTORS / ROTARY ACTUATORS

Major Manufacturers

CINCINNATI

.59 CU.IN., 1.03 CU.IN., 10 CU.IN. 10.5 CU.IN., 1 CU.IN., 22 CU.IN.

DENISON

M1C, M1C1, M1D, M1E M4C, M4C-1, M4D MF Series Gold Cup Series World Cup Series

FUJITSU

EHPM-1/5, EHPM-1/2, EHPM-1-SSS(L) EHPM-1-SSSSS, EHPM-2, EHPM-3

REXROTH

Contact us for more info

STAFFA

B-30, B-40, B-80, B-200, B270, B-S GB-525-S, GB-800-S, GB-1000-S, GB-1400-S

SUNDSTRAND

20 - 27 Series

VICKERS

MFA, MFB, MFI, MF, MHT

ALL UNITS ARE SYSTEM TESTED

HYDRA-STATIC DRIVES

- Eaton
- Sundstrand
- Kubick
- Vickers

HYDRAULIC PUMPS

Major Manufacturers

DENISON

46, 500 , 600 , 700, 800, 900 All DFC-Series **Gold Cup Series** P1F, P1V, P2F-V P3F-V, PA, PF PV, PXX, TDC, TED, TE, TS, TME TMG World Cup Series

OILGEAR

A, AN, BD, C, D, DN, F, HG, H Hydura PVAK, PVLK, PVK, PVT

RACINE

20-L, 80-L, C-11 PSV, PVB, PVF, PVK, PVQ, PVR PVS, PVT

REXROTH

Contact us for more info

VICKERS

2520V, 3525V 4525 All PVB Series All PVQ Series All PVE Series All PVV Series PV 2003, PV 2008, PV 2012 PV 2020, PV 2032, PV 2050 PV 2125, PV 2200, V-108 V-134, V-138, V-144, V-400 V-468, V-5230, VC-108 VC-138, VC-148



HYDRAULIC LOAD TEST STAND





CYLINDERS & SERVO ACTUATORS

- Anker-Holth
- Boxtel-Holland
- Caterpillar
- Graco
- Hanna
- Hydroline
- Instrom
- Kress
- Komatsu
- Lynair
- Miller
- Milwaukee

- Moog
- MTS
- Nopak
- OR164
- Parker
- Rexroth
- Pegasus
- Strippet Sheffer
- Team
- Tomkins

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MECHANICAL COMPONENT REPAIR

With over 30 years of experience, our highly trained technical specialists are dedicated to providing our Customers with quality repairs on gear boxes, gear reducers, brake assemblies, hydraulic turntables, vacuum pumps & blowers, air pumps and many other types of fluid pumps & assemblies. After the repair has been completed, each item is system tested to ensure proper operation and that it meets or exceeds OEM specifications and extended operation under load.

GEAR BOXES, REDUCERS, CYCLO DRIVES

- Alpha
- American
- Belt
- Boston
- Camco
- Cleveland
- Cone Drive
- Diegua
- Dodge
- Falk
- Ferguson
- · K. E. Fisher

- Kawasaki
- Link-Morse
- Nachi
- Ohio
- Regal Beloit
- Remold
- Scotland
- SEW Eurodrive
- Shimpo
- Stober
- Sumitomo



VACUUM PUMPS

- Alcatel
- Busch
- Dresser
- Dresser Rand
- Edwards
- Gast
- Haug
- Kinney
- Leybold
- Nash
- Roots
- Stokes
- Varian
- Welch

BLOWERS

- Dresser
- EG&G
- Levbold
- Siemens
- Stokes
- Roots



FLUID PUMPS

- Bell & Gossett
- Gorman/Rupp
- Gould
- Gusher
- Hydra-Cell
- ITT
- Kerr
- Knoll
- Kobe
- Morris • Obara
- Peerless
- Sandpiper
- Waukesha
- Worthington





BRAKES

- Force Control
- Midwest
- Posidyne
- Rueland
- Sterns





AIR PUMPS

- Cooper
- Gardner Denver
- Hoists
- Hoist Tractors
- Ingersol
- Most Manufacturers

Quality Repair of Manufacturing Equipment Don't see what you are looking for? Give Us A Call! SOUTHGATE, MI TAYLOR, MI KOKOMO, IN LAWTON, OK

SOUTHGATE, MI TAYLOR, MI KOKOMO, IN LAWTON, OK ROCKY HILL, CT OAKVILLE, ON MONTREAL, QC SALAMANCA, MX APODACA, MX TAMWORTH, UK NAPAJEDLA, CZ SINT – TRUIDEN, BE OŚWIĘCIM, PL

PRECISION SPINDLE & PARABOLIC ROLL REPAIR

With over 30 years of experience along with our state of the art spindle repair lab allows our technicians the ability to perform all aspects of spindle remanufacturing to guarantee Quality repairs. Our in-house capabilities to perform machining, motor rewinding and feedback repair ensures the highest quality while controlling costs and delivery time. Upon receipt of your spindle, it will go under an extensive evaluation process to determine exact cause of failure. Each quote will have a detailed failure analysis report for your review and upon your approval, your spindle will be completely rebuilt & recalibrated in one of our class 10,000 HEPA climate controlled clean rooms. Every spindle will be dynamically balanced and tested to allow for proper run in.

Top Manufacturers We Support Bryant, Chiron, Colonial, Cincinnati, Gamfior, GMN, Heald, Hessap, Hurco, Makino, Mazak, Mitsubishi, Mori Seiki, OKK, Okuma/Howa, Omlat, Pope, Setco, Studer, Toyoda and many more!

Spindles are Balanced on CEMB Precision Balancers to a GO.4 Standard



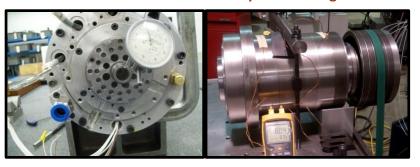
Micro-Finishing Parabolic Rolls



Teardown & Evaluation Are Fully Documented



All aspects of the spindle are monitored for critical run out with vibration & temperature measured at maximum RPM's. Videos are taken for each spindle during final test.



We also have the capabilities to restore and build new Parabolic Rolls used in micro-polishing machines made by Thielenhouse, Supfina/Taft, Pierce & Impco. Our unique grinding fixtures enables us to restore/build the rolls' parabolic forms to factory specifications.

MONTREAL, QC

OŚWIĘCIM, PL

SOUTHGATE, MI TAYLOR, MI KOKOMO, IN SALAMANCA, MX APODACA, MX TAMWORTH, UK

SIMULATION EQUIPMENT

With over 30 years of expertise in the Hydraulic and Mechanical Repair field, K+S provides Repair / Remanufacturing Service of Simulation equipment and systems. K+S supports the Industrial, Commercial, Military and Amusement industries. Our trained technicians understand the importance of meeting the exacting requirements and the operational demands of simulation equipment. K+S uses only OEM manufactured parts in the rebuild process. When original parts or components are no longer available, K+S will either manufacture or have manufactured, the required components to the exact specifications of the OEM drawings.



Hydraulic Power Units



Hydraulic Motion Legs



Closed Loop Testing

Industry Leading Warranty 10 Year Warranty:

Leg Jacks; Actuators; Control Loaders

5 Year Warranty:

All Servo Valves; Pumps; Power Units



Professional Services Include

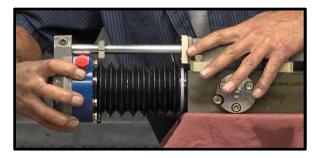
• Knuckle repair

NAPAJEDLA, CZ

Complete motion base rebuild / remanufacture

SINT – TRUIDEN, BE

- Individual actuator repair/rebuild
- Individual leg repair/rebuild
- Power unit design and rebuild
- Servo valve repair/service
- Abort valve repair/service
- Control loading actuator rebuild
- Hydraulic pump and motor repair/rebuild
- Detailed failure analysis report for each unit
- Final test information/reporting
- Power supply and circuit card repair



Hydraulic Position Actuator

APODACA, MX

SALAMANCA, MX

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OŚWIĘCIM, PL

MONTREAL, QC

Torque Tool & Controller Repair

NAPAJEDLA, CZ

TAMWORTH, UK

K+S has the ability to repair and test DC torque tools (nut runners) and their associated controllers. Each tool is completely rebuilt and tested with the matching controller. Calibration and repair reports are supplied with each unit upon successful closed-loop testing. The controllers are each dynamically tested with the nut runner tool and measured / calibrated on a torque angle stand. All documentation is traceable to NIST standards.

Atlas Copco

EBL, ETD, DS, ETO DS, ETP SL, ETV, ST, EP, ETDS, ETO S, ETP ST, ETX, ETC DS, ETD ST, ETP DL, ETV DL, IRTT, ETC S, ETF DL, ETP DS, ETV, DS, LMD, ETD DL, ETF SL, ETP S, ETV S, LMK, LMP, LMV, LTC, LTD, LTO, LTP, LTPV, LTV, LUD, LUF, LUM, QRTT, QMX

Controllers

All Power Focus controllers

Tensor S / DS / ST / SL / DL PF2101, PF3000, PF3100, PF4000 All Power Macs TC52P, TC54P, TC52S, TC54S, PBU

Testing Equipment

ACTA 3000 & 4000, IRTT, TT10

GSE (CP Tech-Motive)

277, 104, 111, 116, 37, 46, 50, 52, 54, 55, 56, 57, 66, SD25, ECA, ECD, ECL, ECLA, ECP, EM, EML, ER, ERA, ERD, ERP, CVIP, MC, MCL

CS4746, CS4700, CS7000, CVI II. CVIP - Plug & Tighten, CVIC, CS2700, CS4000, CS400, CS40, CS50, CS2000

Testing Equipment

Data-Stat 290

FEC

Tool Series EFT, NFT, DFT, HFT, GT, SA

Controllers

HFC, AFC1500, AFC1200, AFC1150, AFC1100, AFC820



Cooper Cleco

17EA, 47EA, 67EA, 17EP, 47EP, 17ES, 47ES, 67ES, B17ES, B17EA, 47EC, 47ET 17B, 47B, TCM, 2, 14, 8, 88, 35, 5, 24, 34, 45, 55, 75, 64, PH, PTH, , STH, 11, 120 , 135, 136DL, 14

Controllers

TMEB, TMEM, TME, TMEC, TMEI

Test Equipment

P2 & P-15 Torque Analyzers TVP-100 Series Torque Verifier TA4 Torque Analyzer **DA Dial Indicating Torque Wrenches**

Ingersoll-Rand

QE, QM, DEA, DEF, 1,Q2, 20, 41, 50, 0,000, 5, 7, QA4, QA6, QA8, 9, ETW, VersaTec,

Controllers

IC1G, IC2G, IC1D, IC1M, PD, PFSI, TMAD

Test Equipment

QC Qualifier YETC-200 ETA2 Torque Analyzer ETA5 Torque Analyzer **ETT Torque Tester**

Rotor Tool

AR, BS, EM, EMR, ES, ER, M100, M101, M52, M54, MT, N100, N101, N52, N54, NSW, S100, S22, SE, SW, TA

Controllers

Tork-Trak R-Tec



Stanley Tool

A30, A32, A33, A40, A50, F50, D30, F3, PE, A30M, A3MFCT, A32MFOCT A40M, E20, E24, E30, E40, EF, M30, M40, W30, W40, QPM,

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Pistol - E02PB-E34PB

Lever - E12LB - E55LB ,EA23LB - EA34LB E12LA - E55LA, EA23LA - EA34LA

Crowfoot - E12LC - E45LC, EA23LC -EA34LC Tubenut - E12LT - E44LT, EA23LT - EA34LT

Hold & Drive - E34LH - E55LH

Straight Motors - E12LP, E23MB-E55MB, E23MBF - E55MB5F

Offset Motors E23MDF - 55MD3F Angle Motors E33MA18 - 55MA32

E33MA18F - E55MA32F

Controllers

Alpha, Gamma, Delta, Sigma, Kappa, Omega, T8000, Beta Tech

Gardner-Denver

H16, H30, 41, 60, 1B, 2B, 3B, EDA, EDR 16, 42, 46, 35, 22, 20, 55, 90, 130, 50

Controllers

M-PRO 91, 92, 93, BLS

Estic/Cinetic/Tayio **Tool Series**

TU, EH, ENRZ, ENRH

Controllers

ΑU DU Trutight EH (Handy 1000, 2000)









LAWTON, OK ROCKY HILL, CT OAKVILLE, ON

MONTREAL, QC

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Weld Gun & Component Repair

INNOVATION AT WORK

Now you have an alternative to your current weld gun component refurbish/repair program!

START SAVING MONEY TODAY!

Significantly reduce your spending with our extensive and innovative rebuild and repair program for resistance weld guns, arms, tip holders, cylinders, and more!

Components Normally Discarded CAN BE REPAIRED!

As an industry leader in repair service, K+S will support all manufacturers and brands of resistance weld guns. Take advantage of this cost saving opportunity today!

Weld Gun BEFORE

Rebuild



Weld Gun AFTER Rebuild

Design Style

Pinch

X-Type

J-Type

Scissors

C-Type

Equalizing

Nut Welding

Dual Gun

Strip Clearance

Cylinder Gun

Trans Gun



Major Manufacturers Supported Inoue, CMW, Obara, Milco, Savair,

Centerline & Denyo Kogyo...



We Are Authorized!!!

We are the Authorized Repair Center for Inoue & Denyo Kogyo



Installation Type

Robotized

Fixture

Pedestal

Portable



Before & After Weld Tip Rebuild



30 Day Warranty



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MONTREAL, QC

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WELDER CONTROL REPAIR

K+S has full service capabilities to repair MIG, TIG and resistance welding controls. At K+S our Weld systems lab leads the industry in repair and testing capabilities. K+S has the experience to analyze and repair a wide variety of weld system components and performs system testing under load to verify functionality and durability. The systems utilized in the repair process are designed to simulate operation conditions in a plant environment.

K+S Services is an authorized service center for Lincoln, Miller, Hitachi and Nippon.









LINCOLN **Authorized:** Southgate, MI Lawton, OK

All Lincoln Power Sources NA-3S, NA4, LN-9, Power Wave 450

NIPPON

NGRALF 6x20

SENSARC All Models

THERMAL ARC Ultima 150 GTS & 300 GTS PAK SXR PS30A

ALL UNITS ARE SYSTEM TESTED

WC100B 185TSW

KOBELCO

All Models

MILLER

Authorized:

Southgate, MI

All Wire Feeders All Miller Power Sources Arc Pac 350

OTC (DAIHEN)

350 & 500 Series DT-300

NADEX

All Models

PANASONIC

AAII 350/500 AE-350/500 KF-350/500BC300 YC-200BC1, YC-300BC1 YD-350AE1, YD-350HM2 YD-500HM2

NADESCO All Models

WTC / MEDAR

GEN 5 Inverters / Timers Cosmos Decade 5 Series Technitron V-50, V-60 & T95 Timers U60T-90A, U60T-91A

U60T-92A, U60T-95A U60T-96A, TB90-P02A 1000 & 3000 Series

ESAB

PCM-625I, PCM-750 PCM-875, PCM-1000 SVI-450I

FRONIUS

Power Units Controllers Wire Feeders **Pendants** Foot Pedals

MOTOMAN

Arc Master 501 Series:

All Models

Motoweld Series:

All Models

HOBART

70L Series

All Hobart Power

Sources

Megacon 110

DENGENSHA

Decomstar 20, 30 & 70 RWC-9000-Ty-18 RWI-9100-Ty-13/14 Fuw-IRWC-GT2

HYPERTHERM

POWERMAX 800, 900

& 1000

HITACHI

All Models



SOUTHGATE, MI TAYLOR, MI

OLOFSSON

PRATT & WHITNEY

TRUMPF AMERICAN

WARNER & SWASEY

Many More.....

ONSRUD

SCIAKY

THK

STRIPPIT

TOSHIBA

TOYODA

SUNDSTRAND

KOKOMO, IN

LAWTON, OK ROCKY HILL, CT OAKVILLE, ON

MONTREAL, QC

SALAMANCA, MX

APODACA, MX

TAMWORTH, UK

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BALLSCREW REPAIR & MANUFACTURING

K+S has the repair capabilities to repair & remanufacture all types of ballscrews. Whether it is an Acme, Rolled Thread or a Precision Ground assembly, K+S has the ability to provide precision repairs. We also have the ability to reverse engineer each ballscrew to provide new units while saving you time and money.

Machine Tool Manufacturers

ACROLOC AMADA AMERICAN LATHE **BRIDGEPORT**

BROWN & SHARPE

BRYANT BULLARD

CINCINNATI MILACRON

CROSS DAEWOO DOOSAN DEVLIEG

EX-CELL-O EXCELLON

F. JOSEPH LAMB

GIDDINGS & LEWIS

GLEASON HARDINGE HEALD

HUFFMAN INGERSOLL

JONES & LAMSON KEARNEY & TRECKER

KINGSBURY LANDIS

LEBLOND MAKINO

LEYBOLD-HERAEUS

LODGE & SHIPLEY

LUCAS

MAG **MAKINO**

LEYBOLD - HERAEUS

LODGE & SHIPLEY

LUCAS MAG









Ballscrew Manufacturers

BARNES

BEAVER PRECISION

MODERN AMERICA

COSMO GAMFIOR HO-FONG

IBL

NACHI NSK **ROCKFORD SAGINAW SARGENT**

SHUTON

SKF

THOMPSON SAGINAW

TSUBAKI 20TH CENTURY

WARNER ELECTRIC



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KOKOMO, IN

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Omron

Parker

Sick

STI

Reliance

Robotron

Siemens

Square D

Yaskawa

Texas Instruments

Westinghouse

Many More!

Sanyo Denki

MONTREAL, QC

SALAMANCA, MX

APODACA, MX

TAMWORTH, UK

NAPAJEDLA, CZ

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REMANUFACTURED EQUIPMENT

K+S Services has over 40,000 remanufactured spare parts ready for immediate sale or exchange. Our philosophy for all Remanufactured spare parts is that each unit is fully system tested in a "closed loop" environment to ensure proper operation. We also provide a full One Year Warranty on all remanufactured spare part purchases. In addition, if you have any excess equipment that you are wondering what to do with it besides paying a company to haul it away, K+S is interested in buying those items, send us your list today and take a Green



ABB Allen Bradley Bailey Bosch **Cutler Hammer Fanuc** General Electric



All Units Are System Tested



Getty's Honeywell **Indramat** Kawasaki Kollmorgen Kuka Lambda Medar Mitsubishi Modicon Nachi Nematron











WE PURCHASE INVENTORY, SEND US YOUR LIST TODAY!













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APODACA, MX

KOKOMO. IN

LAWTON, OK

NAPAJEDLA, CZ

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OŚWIĘCIM, PL

SIEMENS

TAMWORTH, UK

K+S Services, Inc. Canada and Mexico facilities are factory authorized to provide both warranty and non-warranty repair services on your Siemens servo motors. Our technicians have been factory trained in all aspects of troubleshooting and repair for the 1FT5, 1FT6, 1FK6/7, and 1PH6/7 series servo motors.



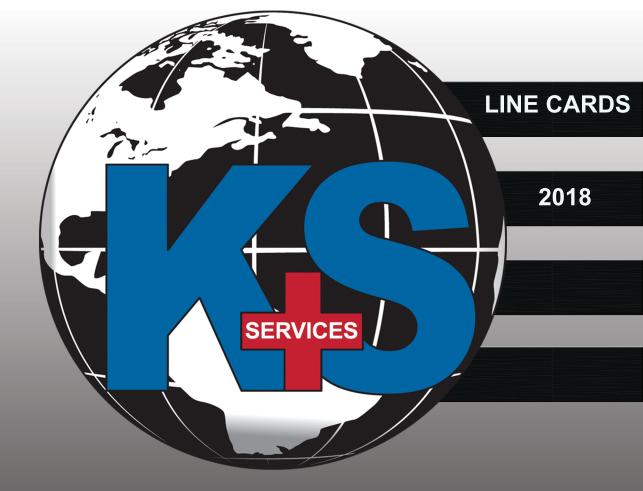
We use only factory components in our repair process ensuring you the same operational performance as a new motor.

All repaired motors are tested in a "closed loop" system utilizing the same test simulators and specifications as the Siemens Factory to maintain quality and consistency.





Our repair warranty is for One Year Inservice for both Siemens Warranty and normal repairs. Give us a call to learn more or visit our website at www.k-and-s.global



K+S GLOBAL LOCATIONS

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Col. Ampliacion Los Angeles tramo
Irapuato-Valle de Santiago
Km. 9.2 Salamanca,
GTO. Mexico CP 36782
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FAX: +52 (464) 113-3134

TAYLOR 20401 Gladwin Ave. Taylor, MI 48180 TEL: +1 734-374-0400 FAX: +1 734-246-6655

OAKVILLE 2300 Bristol Circle Unit 4 Oakville, Ontario L6H 5S3 TEL: +1 905-465-1645 FAX: +1 905-465-0412

BELGIUM Bedrijvenstraat 4324 I.Z. Schurhovenveld 3800 Sint - Truiden Belgium TEL: +32-1148-0003 FAX: +32-1148-0008 KOKOMO 1606 Rank Parkway Ct. Kokomo, IN 46902 TEL: +1 765-454-0038 FAX: +1 765-454-0051

MONTREAL 2127 Rue De La Province Longueil, Quebec J4G-1Y6 TEL: +1 450-646-8989 FAX: +1 450-646-8989

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Unit 20 Darwell Park
Amington Industrial Estate
Tamworth, B77 4DR
Saffordshire, United Kingdom
TEL: +44-1827-68052
FAX: +44-1827-68058

LAWTON 215 S.E. J. St. Lawton, OK 73501 TEL: +1 580-248-5655 FAX: +1 580-248-8978

APODACA Orion #1463 Int. 1 Parque Industrial Orion Apodaca, Nuevo Leon, Mexico, CP 66600 TEL: +52 (81) 8190-2505

FAX: +52 (81) 8190-2501

CZECH REPUBLIC ulice 2. kvetna 685 areal Slavia Napajedla, 763 61 Czech Republic TEL: +420-577-100-114 FAX: +420-577-100-116

POLAND Unii Europejskiej 10 Oświęcim 32-600 Poland TEL: +48-33-474-03-77