

ASSEMBLY

BUYERS GUIDE PRODUCT CATEGORIES

ADHESIVES, COATINGS, TAPES, SEALANTS and LUBRICANTS

Adhesives

- 00300 *Adhesives, Acrylic*
- 00400 *Adhesives, Anaerobic*
- 00500 *Adhesives, Conductive*
- 00600 *Adhesives, Cyanoacrylate*
- 00700 *Adhesives, Epoxy*
- 00800 *Adhesives, Fastener Retention*
- 00900 *Adhesives, Hot-Melt*
- 01000 *Adhesives, Silicone*
- 01100 *Adhesives, Urethane*
- 01200 *Adhesives, IR & UV Curable*

- 01300 Adhesive Tapes, Conductive**
- 01400 Adhesive Tapes, Pressure Sensitive**
- 01500 Adhesive Preforms**
- 01600 Conformal Coatings**
- 01700 Encapsulating and Potting Material**
- 01800 Formed-In-Place Gasket Material**

Lubricants

- 01830 *Assembly Lubricants*
- 01850 *Insertion Aids or Lubricants*
- 01875 *Machinery Lubricants*

- 01900 Sealant Material**

ASSEMBLY HARDWARE and MACHINE COMPONENTS

- 02100 *Bearings*
- 02200 *Cabinets and Enclosures*
- 02250 *Castings and Stampings*
- 02300 *Clamps, Manual and Powered*
- 02400 *Couplings, Mechanical*
- 02500 *Machine Bases, Tables and Platforms*
- 02600 *Machine Mounts*
- 02700 *Modular Structural Framing Components*
- 02750 *Sensor Brackets*
- 02800 *Shock Absorbers, Mechanical and Gas*

AUTOMATED ASSEMBLY MACHINES & SYSTEMS

- 03000 Assembly Machine Chassis**

Assembly Machines

- 03200 *Assembly Machines, Carousel*
- 03250 *Assembly Machines, Continuous Motion*
- 03300 *Assembly Machines, In-Line*
- 03400 *Assembly Machines, Non-synchronous (Power-and-Free)*
- 03500 *Assembly Machines, Rotary*
- 03600 *Assembly Machines, Walking Beam Transfer*

- 03700 Assembly Machine Dial Plates**
- 03800 Flexible Assembly Systems**
- 03900 Nutrunning Machines, Single- and Multiple-Spindle**
- 04000 Screwdriving Machines, Single- and Multiple-Spindle**

AUTO ID, BAR CODING, PRODUCT MARKING and LABELING EQUIPMENT

- 04200 *Bar Code Printers and Readers*
- 04300 *Engraving and Stamping Machines*
- 04400 *Ink Jet Printers*
- 04500 *Labels*
- 04600 *Label Printers and Dispensers*
- 04700 *Laser Marking Machines*
- 04800 *Marking and Printing Machines*
- 04900 *Pad Printers*
- 05000 *RFID Systems*
- 05100 *RFID Tags*

AUTONOMOUS VEHICLE TECHNOLOGY

Automated Systems and Services

- 05115 *Sensors*

Electrification Systems and Services

- 05125 *Batteries*
- 05130 *Capacitors*
- 05135 *Fuel Cells*
- 05140 *Motors*
- 05145 *Power Electronics*

Vehicle Systems and Services

- 05155 *Electrical*
- 05160 *Electronic*
- 05165 *Electrical & Electronic Semiconductors*
- 05170 *Electrical & Electronic Sensors*
- 05175 *Materials*
- 05180 *Manufacturing*
- 05185 *Powertrain/Propulsion*
- 05190 *Powertrain/Propulsion, Engines*
- 05195 *Powertrain/Propulsion, Transmissions*
- 05200 *Test & Measurement*

BRAZING, SOLDERING and WELDING EQUIPMENT

- 05300 Brazing Systems**
- 05350 Crimp Soldering**
- 05400 Fume Extractors**
- 05500 Soldering Irons and Controllers**

Soldering Machines

- 05700 *Soldering Machines, Hot Air*
- 05800 *Soldering Machines, Hot Bar*
- 05900 *Soldering Machines, Microflame*

- 06000 Soldering Tips and Tip Cleaners**
- 06100 Ultrasonic Welding Machines, Metal**
- 06200 Ultrasonic Welding Machines, Plastic**
- 06300 Ultrasonic Welding Machine Horns**

Welders

- 06500 *Welders, Friction*
- 06600 *Welders, Hot Plate*
- 06700 *Welders, Induction*
- 06800 *Welders, Plastic, Hot Air*
- 06900 *Welders, Laser*
- 07000 *Welders, Microflame*
- 07100 *Welders, Spot*
- 07200 *Welders, Stud*

CLEANING EQUIPMENT AND SUPPLIES

Cleaning Machines

- 07500 *Cleaning Machines, Aqueous*
- 07600 *Cleaning Machines, Plasma*
- 07700 *Cleaning Machines, Solvent Bath*
- 07800 *Cleaning Machines, Ultrasonic*

07900 Cleaning Materials

CONTRACT ASSEMBLY and ASSEMBLY-RELATED SERVICES

- 08100** Contract Assembly and Manufacturing
- 08200** Contract Engineering Services
- 08225** Contract Fastener Coating
- 08250** Contract Inspection and Testing
- 08300** Contract PCB Assembly
- 08350** Contract R&D Services
- 08500** Contract Wire Harness Assembly
- 08700** Rapid Prototyping Services
- 08800** Training Services
 - 08850 *Advanced Technical Training and Certifications*

CONVEYORS and HANDLING SYSTEMS

- 09000** Automatic Guided Vehicles (AGVS)
- 09100** Automated Storage and Retrieval Systems (ASRS)
- 09200** Bins, Totes, Trays and Containers
- 09300** Cable and Hose Carriers and Reels
- 09400** Carts

Conveyors

- 09600 *Conveyors, Accumulating*
- 09700 *Conveyors, Belt*
- 09800 *Conveyors, Carousel*
- 09900 *Conveyors, Magnetic Belt*
- 10000 *Conveyors, Overhead*
- 10100 *Conveyors, Power-and-Free or Towline*
- 10200 *Conveyors, Roller*
- 10300 *Conveyors, Vacuum*
- 10350 *Overhead Cranes and Lifting Devices*

- 10400** Returnable Packaging
- 10500** Tray and Pallet Transfer Systems
- 10600** Tray Stackers and De-stackers
- 10700** Lift Tables and Lift Assist Devices

DISPENSING and CURING EQUIPMENT

- 10900 Adhesive Cartridges
- 11000 Adhesive Dispensers, Automatic
- 11100 Adhesive Dispensers, Manual
- 11200 Adhesive Mixing and Metering Equipment
- 11250 Adhesive Packaging Systems
- 11300 Adhesive Tape Dispensers
- 11400 Dispensing Needles and Tips
- 11500 Dispensing Valves
- 11600 Encapsulating and Potting Equipment
- 11700 IR & UV Curing Equipment
- 11750 Lubricant Dispensing Equipment
- 11800 Solder Paste Dispensing Equipment

ELECTRICAL, ELECTRONIC and FIBER OPTIC COMPONENTS & SUPPLIES

- 12000 Cable Assemblies and Cord Sets
- 12100 Component Carrier Tape
- 12200 Connectors, Splices and Terminals
- 12300 Electric Power Distribution Equipment

- 12400 Fractional Horsepower Motors
- 12500 Heat Shrink Tubing
- 12600 Printed Circuit Boards (Bare)
- 12700 Pushbuttons and Switches
- 12800 Shielding Material (EMI and RFI)
- 12900 Signal Lights and Status Displays
- 13000 Solder Dam and Mask Material
- 13100 Solder Wick
- 13200 Standoffs
- 13300 Static Control Material
- 13400 Stencils and Squeegees for Screen Printing
- 13500 Strain Relief Devices
- 13600 Uninterruptible Power Supplies
- 13700 Wire and Cable
- 13800 Wire and Cable Ties
- 13900 Wire Wrap
- 14000 Wire Marking Labels

FASTENERS and PRECISION FORMED PARTS

- 14200 Bolts
- 14400 Fasteners, Tamper-Proof
- 14500 Fasteners, Torque-Limiting
- 14600 Inserts
- 14700 Nails
- 14800 Nuts
- 14900 Pins, Coiled Spring
- 15000 Pins, Solid
- 15100 Precision Formed Parts
- 15200 Quick-Operating Fasteners
- 15300 Retaining Rings
- 15400 Rivets, Blind
- 15500 Rivets, Self-Piercing
- 15600 Rivets, Solid
- 15700 Screws
- 15800 Screw-Washer Assemblies (SEMS)
- 16100 Threaded Studs
- 16200 Washers
- 16300 Weld Nuts and Studs

FORMING and RIVETING MACHINES

- 16500 Clinching and Staking Machines
- 16600 Impact Riveting Machines
- 16700 Injected Metal Assembly Machines
- 16800 Orbital Forming and Riveting Machines
- 16900 Radial Forming and Riveting Machines
- 17000 Spin-Rolling Machines

INSPECTION EQUIPMENT: ACOUSTIC, OPTICAL and X-RAY

- 17200 Acoustical Inspection Machines
- 17300 Automated Optical Inspection (AOI) Machines
- 17400 Magnifiers
- 17500 Microscopes
- 17600 Optical Comparators
- 17700 Solder Paste Inspection Machines
- 17800 X-Ray Inspection Machines

MOTION CONTROL, POSITIONING and INDEXING EQUIPMENT

- 18000** Actuators, Linear
- 18100** Actuators, Rotary
- 18200** Ballscrews
- 18300** Cam and Dial Indexers

Couplings

18600 *Couplings, Torque-Limiting*

18700 *Couplings, Zero-Backlash*

18800 Encoders, Linear

18900 Encoders, Rotary

19000 Laser-Guided Positioning Devices

19100 Linear Motors

19200 Linear Slides

19300 Motion Control Systems

19350 Multi-axis Actuators

19400 Nano-positioning Devices and Systems

19500 Rotary Indexing Tables

19600 Servo Drives and Systems

19700 Servo System Controllers

19800 Stepper Motors and Controls

19900 X-Y Tables

19950 X-Y Positioning Stages

PARTS FEEDERS and POSITIONING EQUIPMENT

20100 Counting Scales

20200 Guidance Devices for Manual Parts Picking

20300 Part Counters

20400 Part Feeder Controls

Part Feeders

20700 *Part Feeders, Centrifugal*

20750 *Part Feeders, Conveyor-Based*

20800 *Part Feeders, Elevator*

20900 *Part Feeders, Hopper*

21000 *Part Feeders, Magazine*

21050 *Part Feeders, Robotic*

21100 *Part Feeders, Vibratory Bowl*

21200 *Part Feeders, Vibratory Linear*

21300 Part Positioners and Manipulators

21400 Part Tracks and Escapements

21500 Parts Trays and Pallets

21600 Pick-and-Place Machines

21700 Screw Feeders

21800 Sorting and Separating Machines

21900 Spring Feeders

22000 Vacuum Part Pickups and Suction Cups

PCB ASSEMBLY MACHINES, EQUIPMENT & TOOLS

22200 *Component Placement Machines, Surface Mount*

22300 *Component Insertion Machines, Through-Hole*

22400 *Component Taping Machines*

22500 *Lead Forming and Clinching Machines*

22600 *Conformal Coating Application Machines*

22700 *De-soldering Stations*

22800 *Flux Application Machines*

22900 *Hand Tools for Electronics Assembly*

23000 *Odd-Form Parts Insertion and Placement Machines*

23100 *PCB Carriers*

23200 *PCB Drilling Machines*

23300 *PCB De-paneling Machines*

23400 *PCB Handling and Feeding Machines*

23500 *PCB Rework and Repair Equipment*

23600 *Reflow Ovens*

23700 *Screen and Stencil Printing Machines*

23800 *Solder Ball Placement Machines*

24000 *Static Control Devices*

24100 *Stencil Cleaning Machines*

24200 *Terminal and Connector Insertion Machines*

24300 *Vapor Recovery Systems*

24400 *Wave Soldering Machines*

PNEUMATIC and HYDRAULIC EQUIPMENT & COMPONENTS

24600 *Air Compressors*

24700 *Controls, Hydraulic*

24800 *Controls, Pneumatic*

24850 *Couplings, Hydraulic and Pneumatic*

24900 *Cylinders, Hydraulic*

25000 *Cylinders, Pneumatic*

25100 *FRL Units*

25200 *Gaskets*

25300 *Hose, Compressed Air*

25400 *Hydraulic Pumps*

25500 *Lubrication Equipment*

25600 *Motors, Hydraulic*

25700 *Motors, Pneumatic*

25800 *O-Rings and Seals*

25900 *Vacuum Pumps*

26000 *Valves, Hydraulic and Pneumatic*

POWER and HAND TOOLS & ACCESSORIES

26200 Angle Attachments for Power Tools

26300 Drills, Pneumatic

26400 Drills, Electric

26500 Extensions

26600 Heat Guns

26700 Impact Wrenches, Pneumatic

26800 Impact Wrenches, Electric

26850 Material Handling Equipment

26900 Nut Drivers, Manual

27000 Nutrunners, Electric

27100 Nutrunners, Pneumatic

27300 Portable Rivet-Setting Guns and Tooling

27400 Pulse Tools

27500 Screwdriving Bits

Screwdrivers

27700 *Screwdrivers, Cordless Electric*

27800 *Screwdrivers, Electric*

27900 *Screwdrivers, Manual*

28000 *Screwdrivers, Pneumatic*

28100 Sockets for Power Tools

28200 Stud Driving Tools, Powder Actuated

28300 Tool Balancers

28400 Tool Boxes and Chests

28500 Torque-Absorbing Arms for Power Tools

28600 Torque Wrenches

PRESSES, SEAL and O-RING INSTALLATION MACHINES

28800 Eyeletting Machines

28900 Insert Drivers, Heat and Ultrasonic

29000 Pin Insertion Machines

Presses

29200 *Presses, Electric*

29300 *Presses, Electromechanical*

29400 *Presses, Hydraulic*

29500 *Presses, Hydropneumatic*

29600 *Presses, Manual*

29700 *Presses, Pneumatic*

29900 Seal and O-Ring Installation Machines

PROGRAMMABLE CONTROLLERS, SOFTWARE, MACHINE CONTROLS and DATA ACQUISITION DEVICES

- 31000 Computer-Guided Assembly Aids and Systems
- 31100 Data Acquisition Devices
- 31125 Design software (CAD, CAM, DFMA)
- 31150 Documentation Software
- 31200 Programmable Controllers
- 31300 Simulation Software
- 31400 Machine Controls
- 31425 MES & ERP Software
- 31450 Quality software (SPC, data analytics)

ROBOTS and ROBOT ACCESSORIES

- 31600 Collision Sensors and Crash Protection Devices**
- 31700 Compliance Devices**
- 31800 Control Systems for Robots and Vision**
- 31900 End Effectors and Tool Changers**
- 32000 Grippers, Mechanical**

Robots

- 32200 Robots, 5- and 6-Axis*
- 32300 Robots, Cartesian Coordinate*
- 32500 Robots, Dispensing*
- 32600 Robots, Gantry*
- 32700 Robots, SCARA*
- 32800 Robots, Soldering*

SOLDER, SOLDER PASTE & FLUX, BRAZING ALLOYS & FLUX

- 33000 Brazing Alloys
- 33100 Brazing Flux
- 33200 Brazing Paste
- 33300 Brazing Alloy Preforms
- 33400 Solder Paste
- 33500 Solder Flux
- 33600 Solder Preforms

TEST, MEASUREMENT, CALIBRATION and MOTION ANALYSIS EQUIPMENT

- 33800 Adhesion Testers
- 33900 Cable and Wire Testing Equipment
- 34000 Connector Crimp Monitors
- 34100 Electronic Circuit Test Systems
- 34200 Electrostatic Test Equipment
- 34300 Gauges, Force
- 34400 Gauges, Thread
- 34450 General Test Equipment and Systems
- 34500 Laser Measurement Equipment
- 34600 Leak Testing Machines and Systems
- 34700 Load Cells
- 34800 Motion Analysis Equipment
- 34900 Multimeters
- 35000 Press Fit Monitors
- 35100 Pressure Measurement Devices
- 35200 Productivity and Process Monitoring Systems
- 35300 Sensors, Force
- 35400 Sensors, Torque
- 35600 Thermal Profilers
- 35700 Torque Analyzers

- 35800 Torque-Tool Control Systems
- 35900 Torque-Tool Calibration Equipment
- 36000 Test Equipment for Fiber Optic Cable
- 36100 Wirebond Pull Testers
- 36200 Wire Strip Monitors
- 36250 X-Ray Fluorescence Analyzers

VISION SYSTEMS, SENSORS and GUARDING DEVICES

- 36400 Cameras
- 36500 Guarding Devices, Electronic
- 36600 Guarding Devices, Mechanical
- 36700 Vision Systems
- 36800 Vision System Lighting Equipment
- 36900 Electro-Optical Sensors
- 37000 Proximity Sensors
- 37100 Tactile Sensors
- 37200 Torque Sensors
- 37300 Two-Hand Safety Controls

WIRE PROCESSING MACHINES & TOOLS

- 37500 Coil Winding Machines
- 37600 Connector Crimping Machines
- 37800 Wire and Cable Tie Installation Machines
- 37900 Wire and Cable Tie Installation Tools
- 38000 Wire Cutting, Stripping and Terminating Machines
- 38100 Wire Cutting, Stripping and Terminating Tools
- 38200 Wire Harness Assembly Boards
- 38300 Wire Harness Manufacturing Equipment
- 38400 Wire Marking Machines

WORKSTATIONS, SEATING, WORK LIGHTING & ACCESSORIES

- 38600 Assembly Benches**
- 38650 Carts**
- 38700 Chairs and Stools**
- 38800 Mobile Tables**
- 38900 Protective Clothing and Gloves**
- 39000 Racks and Shelves**
- 39100 Safety Items**
- 39200 Work Lamps and Lighting**
- 39300 Workstation Components and Accessories**

Workstations

- 39500 Workstations, Adjustable Height*
- 39600 Workstations, Modular*
- 39700 Workstations, Pick-To-Light*