Pharmaceutical Packaging Machinery
Robotic Workcells
Rotary & Indexing Machines
Controls & Electrical Design
Assembly & Welding
Test, Measurement & Inspection
Material Handling & Conveying
Machine Vision & Inspection
Assembly & Welding

RND Automation & Engineering has over 20 years experience in the design & manufacturing of automated assembly & welding machines. Our assembly machines range in size from tabletop, semi-automatic units to multimillion dollar, multi-station assembly machines. Our welding machinery experience includes braid-to-bimetal, braid to shunt and braid solidification machines, and even servo welding.

RND integrates technologies such as SCARA and six-axis robots, rotary and linear indexers, and machine vision into their assembly machines to provide a turnkey solution for your most demanding assembly operations.

- Braid to Bi-Metal Welding
- Spot Welding
- Ultrasonic Welding
- Cartesian Pick & Place
- Vibratory Feeder Bowls
- Press Loading & Unloading
- Multi Part Assembly Processes
- Fluid & Paste Dispensing
- Medical Device Assembly

Pharmaceutical Packaging Machinery

With over 150 successful pharmaceutical machines in operation, RND Automation & Engineering is the premiere firm in the southeast dedicated to the pharmaceutical packaging process. With experience in and knowledge of many pharmaceutical and FDA rules and regulations, RND is uniquely positioned to assist you with your global automation needs.

Many of RND’s ampule and vial packloaders have been running production, 24 hours a day for over 10 years. These units are built to withstand the demands of around the clock production

- Contact & Optical Lens Handling
- Clamshell & Carton Loading
- Tray Loading & Unloading
- High Speed Carpule Handling
- Automated Visual Inspection
- Vial & Ampule Unscrambling
- Medical Device Assembly

Test, Measurement & Inspection

After your product is assembled you need to ensure that it’s functional. RND Automation has extensive experience in the field of testing and inspection. Most testing and inspection operations can be integrated into the assembly process and reject parts can be removed from the process immediately so that value added functions are not preformed on rejected parts.

From resistance, current, voltage, and hi-pot testing of electrical components, to pressure testing hydraulic and pneumatic fittings, to vision inspection including presence/absence detection and optical measurement, RND can verify that every product leaving your assembly machine has been tested to your specifications and is ready to ship to the customer.

- Voltage & Current Measurement
- Resistance Testing
- Hi-Pot Testing
- Pressure & Leak Testing
- Pull and Compression Testing

Robotic Workcells

RND Automation & Engineering’s flexible robotic automation solutions are designed to meet customer’s increasing demand for flexibility and efficiency in assembly, material handling, palletizing and case packing processes. We specialize in getting the most out of your robotic application including using the robot for multiple tasks or by using multiple end of arm tools (EOAT).

RND has experience with Epson, FANUC, MotoMan, Intelligent Actuator, Adept, Denso, & Staubli robots. Bring us your problem and RND will find the right robot for the application.

- Six axis and SCARA Robots
- Material Handling
- Robotic Assembly
- Torque Testing Applications
- Case Pack & Palletizing
- Robotic Buffing & Grinding
- Machine Tending
Material Handling is the unsung hero of the machinery world. While robotic workcells and high speed assembly machines are often the ones that get the most attention, most manufacturing as we know it is based on material handling. Tasks as simple as conveying boxes from one part of your factory to another can impact your bottom line in serious ways.

RND Automation has tremendous experience in not only designing custom material handling solutions, but also acting as your integrator, taking several desperate systems such as cartoners, labelers, sealers, conveyors and other pieces of machinery and integrating them into a single turnkey production line.

- Case Pack & Palletizing
- Custom Conveyor Design
- Puck Loading / Unloading
- Cap Feeding & Sorting
- Rotary Plugging Machines

Rotary & Indexing Machines

Typically the most efficient way to get high production volumes and to produce parts at a high speed is to use a rotary or linear indexing machine. By performing simultaneous actions on a number of parts the cycle time is reduced. Whether it is a rotary indexing dial or a linear power and free conveyor, RND Automation can design and build a machine that allows you to assemble complex parts at speeds of up to 200 parts per minute.

Cam driven, AC, DC and servomotor driven system are available depending on your required speeds and accuracy. Integrating robotic pick and place units to your dial or indexing machine can further reduce the need for human labor. RND machines often run unattended for entire shifts.

- High Speed Indexing
- Over/Under & Carousel Indexing Machines
- Servo & Index on Demand Systems
- Rotary Plugging Machines
- Ultrasonic Welding
- Assembly & Parts Feeding

Machine Vision & Inspection

Nothing can beat the human eye for detection of errors. Nothing that is except today’s high speed vision inspection systems. Measuring tolerances and positions, character recognition, pattern matching and DataMatrix & barcode reading are just a few of the things that RND can do with vision inspection systems.

In process inspection also allows you to catch assembly errors due to out of tolerance material or a station in need of maintenance by tracking and trending parts that fail inspection. Preventing a machine from making thousands of bad parts only once, can often pay for the cost of the inspection.

- Oring Inspection
- Optical Character Recognition
- Product Presence / Absence
- Optical Measurement
- Defect Analysis
- DataMatrix & Barcode Reading

Controls & Electrical Design

The PLC is the brains of most industrial machines. RND Automation takes that analogy a step further offering you a machine that is not only easy to operate, but can self diagnose problems. Our controls and electrical engineering departments work hard to provide machines that easily allow maintenance personnel to diagnose sensor, servo, and pneumatic issues.

RND Automation is versed in all the major PLC platforms including Allen Bradley, Siemens, Unitronics, Omron, Bosch Rexroth, GE FANUC & Mitsubishi. We also provide full UL Listed panel building services.

- Allen Bradley, Unitronics, Omron & FANUC PLC Programming
- Bosch Rexroth PLCs and Motion Controller Programming
- Servo & Motion Drives Programming
- RFID, DataMatrix & Barcode Reading
- Panel Design & Build
- Human Machine Interface (HMI) Touchscreens
RND Automation & Engineering, LLC is Florida’s premier custom machine builder.

RND engineers, designs, manufactures and retrofits custom automation & material handing machinery for industries as diverse as hydraulic valves, automotive sensors, and contact lenses. Our projects range from fully automatic high-speed robotic work cells to operator assisted semi-automatic workstations. With our 20 years of experience in industrial machinery design, we provide our clients with production ready automated equipment that cuts labor costs and improves quality and production rates.

Contact RND with your next design challenge and let RND turn concepts into reality.