DISPENSE WORKS INC

RING DEX SERIES

Filling - Tipping - Capping - Labeling - Feeding - Assembly

BENCH TOP MODELS

PRODUCTION MODELS

Filling and Capping Systems

815-363-3524 • info@dispenseworks.com • dispenseworks.com

A Just Right "Solution"

Ideal for quick changeover, high mix, low volume applications in a truly space saving compact package

Streamline Your Production

The Ring Dex system is a unique solution for automating your manual filling, tipping and capping operations.

Available in several configurations from manual load bench top design, to fully automated systems to best suit your unique requirement.

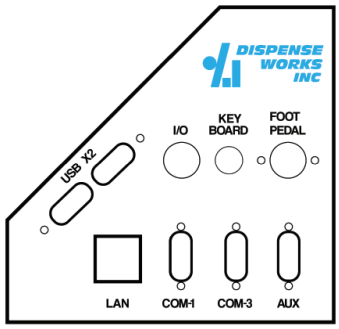
Powered Work Stations

Each tower is self contained with it's own fully programmable processor.

This means real multi tasking performance that controls all logic, motion, and file management.

Latest Embedded Control Technology

External interface includes Ethernet (LAN), RS-232, Four com ports, dual USB ports, additional I/O and 6 axis servo expansion. The bar code scanner input will allow selecting jobs from a printed label or work order.

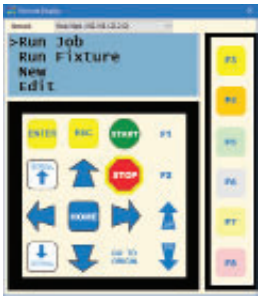


A File Based Solution

Create recipes, on the PC end, then download them to the machine. The ability to upgrade the machine's software by downloading a single file, ensures that your investment will be as prudent as it is productive.

The Operator's Choice

Your operators will appreciate the ergonomics and ease of use with the machine, its setup, calibration function and file management system. Your techs will love the zero maintenance, machine tool quality construction.



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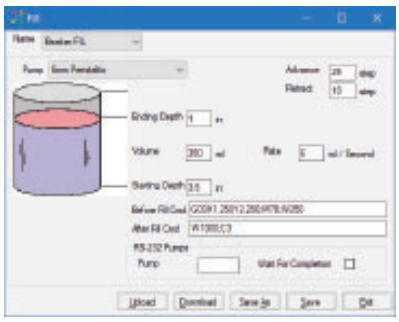
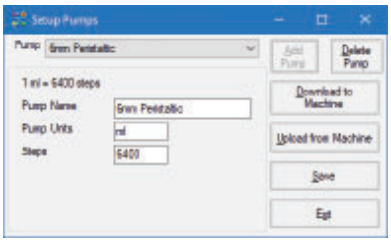
Pre-Programmed Functions

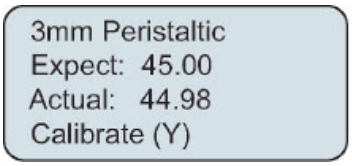
Advanced Filling Performance

Fill files control the peristaltic (or positive displacement) pump with simple graphical menu entry.

- Fill Volume / Fill Speeds
- Diving Nozzle (Servo) Programmable
- Snuff-back Control
- Additional Logic







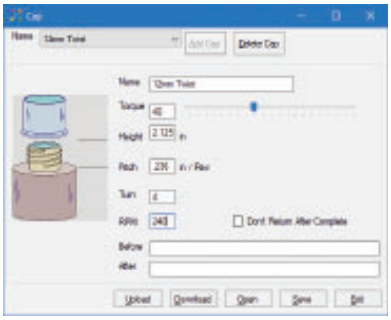
On Board Pump Calibration

Just enter the actual weight from a sample. Automatically adjusts all encoder values. A limitless number of pump files may exist in the machine for different tubing sizes, nozzles, etc. Ideal for future expansion.

Control Capping Torque & Cap Pitch

Cap files control the station with simple, graphical menu entry of pre-programmed servo parameters:

- Bottle Height
- Cap Thread Data
- RPM & Number of Turns
- Programmable Torque

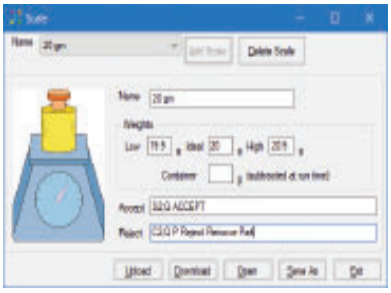


Check Fill Volumes

Scale files control the station with simple, graphical menu entry of pre-programmed parameters. Scale files record each bottle's weight every cycle (auto tare) with ultra-precision.

Scale is settable in: ounces, grams, etc. Product must weigh between set high/low values to pass.

- Set Ideal Weight
- Set Acceptable Range
- Provide Logic for Over Weight
- Provide Logic for Under Weight

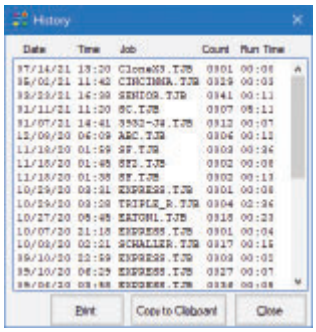


Track Bottle Filling Production

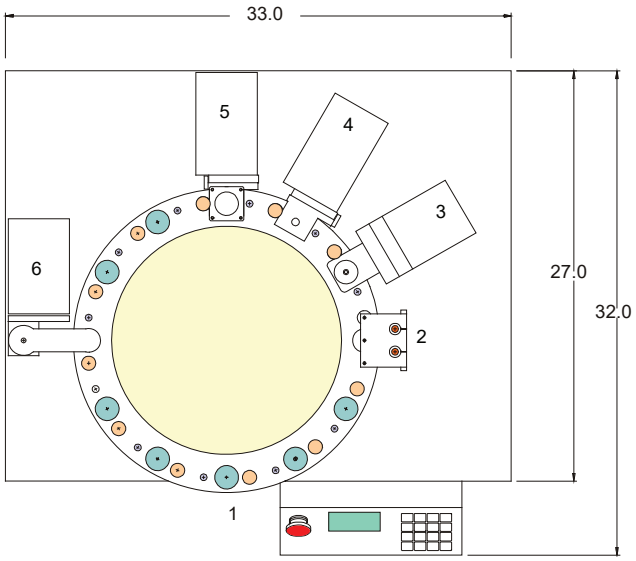
Track Your Production Data

Production information is stored during & after each cycle. Captured information is the date, time, product name, production count and cycle times.

The History file may be accessed from our Windows Software Suite and then printed, copied into a report or saved as a spread sheet file. Other "flags" such as a pause or any interruptions during production may be tracked as well.



Production History File

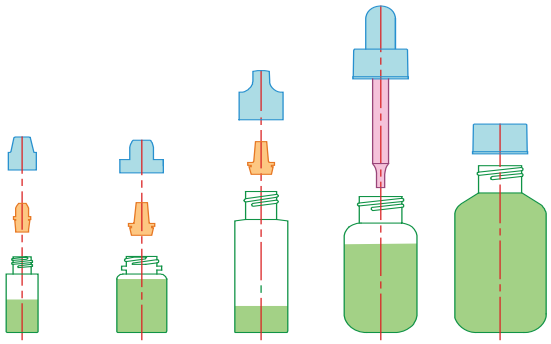


Dual Mode of Operation

On Demand:
Press the touch pad (or foot pedal) to start the machine cycle. Operator controls the production rate.

Pace the Operator:
Machine is set to cycle every X seconds.
After a time period, and with a soft "beep", the machine cycle begins.

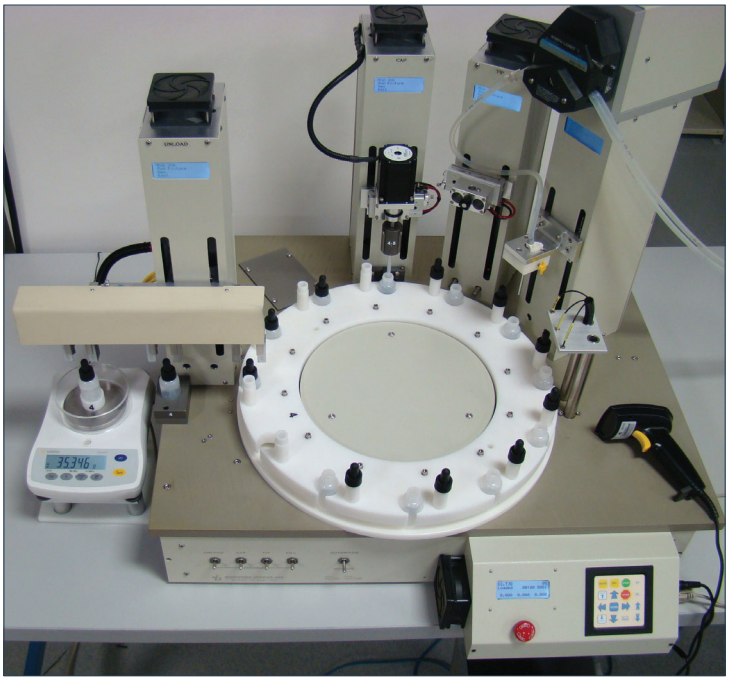
Either way, if a missing part is detected, the machine will pause for the operator to load it and acknowledge to resume.



Ideal for Screw-On or Snap-Fit Caps

Containers may be processed with their caps screwed on or with the caps supplied loose. Software logic is included for either scenario.

A Modular Design



- Fill Station features Diving Nozzle with tool less mount and magnetic safety breakaway.
- Cap Station features 4 Jaw Grippers with adjustable torque, grip force and thread pitch following.

Machine Tool Quality

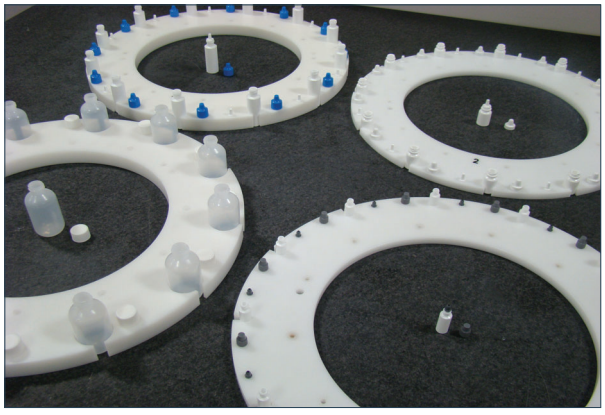
Each work station tower features pre-loaded lead screws and ball slides driven by digital brushless servo motors. Speeds and accelerations are controlled for smooth motions and to provide programmable adjustments of:

- Bottles of varying heights
- Diving nozzle position and stroke
- Fill volumes, speed and snuff back
- Capping depth, pitch and torque

Fill & Cap Work Stations

The machine consists of work stations mounted around a centrally located indexing ring.

- Programmable
- High-Speed Dispensing
- Pre-programmed Station Cycles
- Smooth & Quiet Operation
- Look Ahead Motion Technology



Quick Changeover Time

The Ring Dex dials are removable for quick changeover requiring no previous technical experience. Great for processing families of small bottles and vials. Changeover means just loading a new file

The indexing rings, gripper jaws, clamps may be purchased at a later date as needed and installed in the field using only a few hand tools.

Simply Select a Ring and Run It!

Ideal for R&D Lab or the Production Floor

Shown with options: Bulk tube load magazine, cap feeder, programmable XY tray packaging.

Bottle Shapes

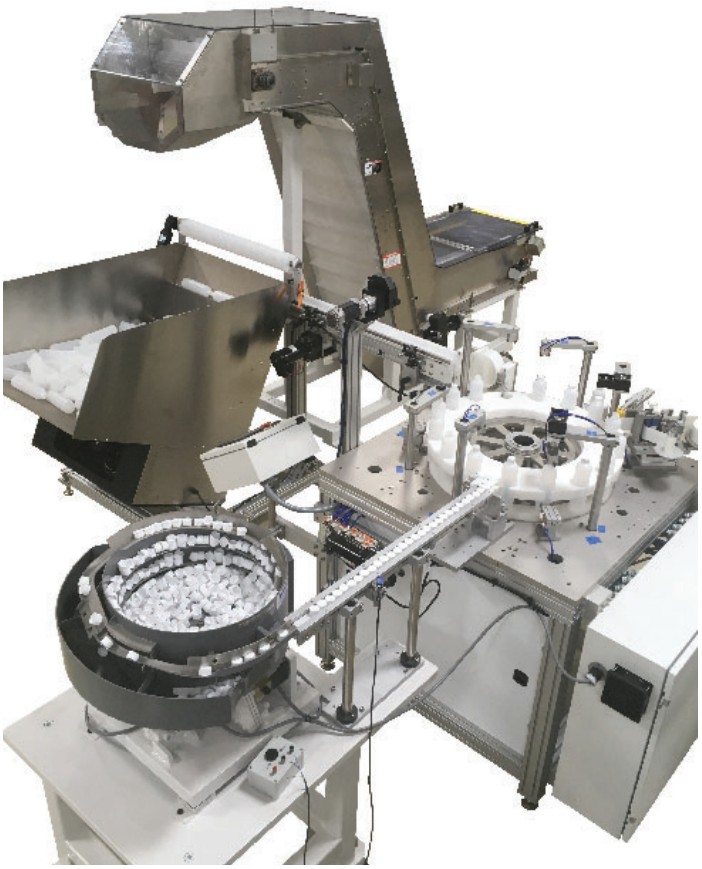
Bottles may be processed with caps assembled to them or supplied loose. Software logic is included for either scenario.

Quick change ring dial accommodates hundreds of container shapes and sizes among others.

- Square
- Round
- Cryo Vials
- Special Shapes
- Conical
- Skirted

Great for.....Supplied Caps On or Caps Off

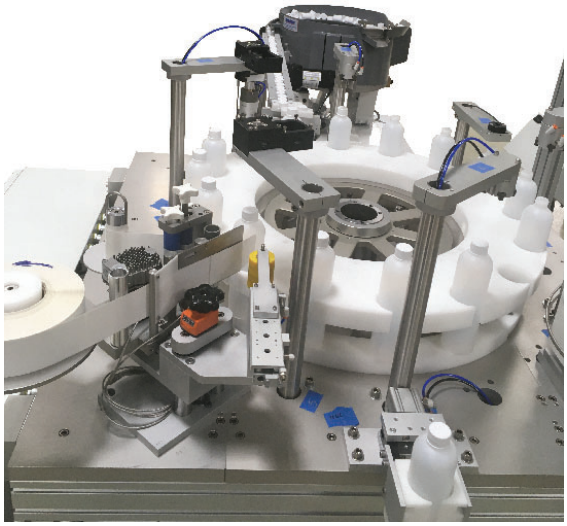
RING DEX 2 SERIES



Streamline Your Production

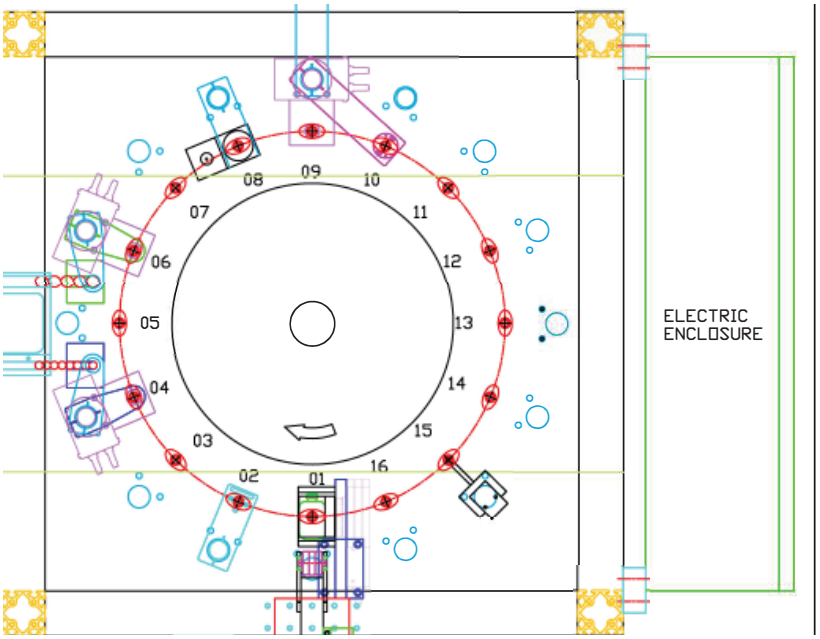
The Ring Dex 2 system is a unique solution for automating your manual filling, tipping and capping operations with one precise and affordable package.

The machine is available in several configurations from manual load bench top design, to full hopper / feeder solutions to best suit your unique requirement.



Powered Work Stations

The Ring Dex 2 has various stations positioned around the rotary dial. Each of these stations performs a specific operation on the parts in the dial after the dial indexes. These stations are custom engineered, tooled, and programmed for each application. The HMI allows for operational parameters of each station to be adjusted.

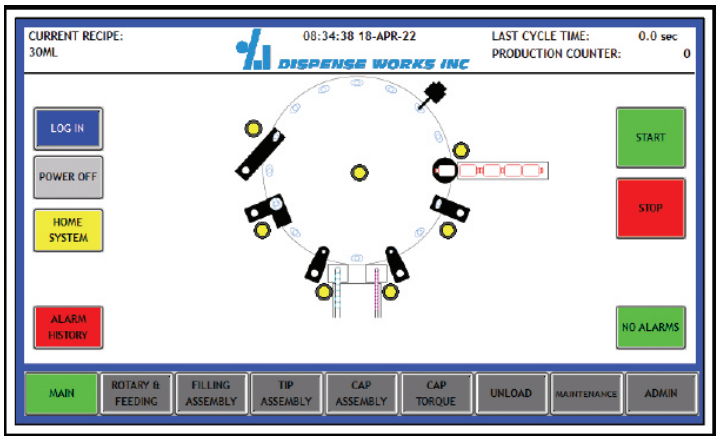


Pre-Programmed Functions

Latest Control System Technology

The Ring Dex 2 uses a PLC based control system. Machine operation is controlled using the touchscreen HMI at the front of the machine. The HMI is also used to modify various operational parameters, and provide diagnostic information.

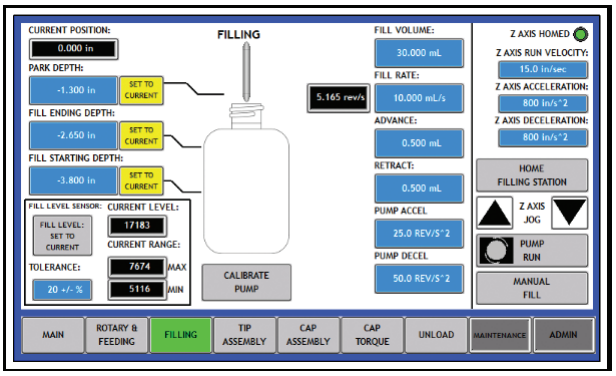
Recipe files can be configured for simple changeover between different part configurations. Emergency Stop buttons can be pressed to immediately remove power to all motors and pneumatic solenoids on the machine.



Advanced Filling Performance

Fill files control the peristaltic (or positive displacement) pump with simple graphical menu entry. Built-In digital pump control.

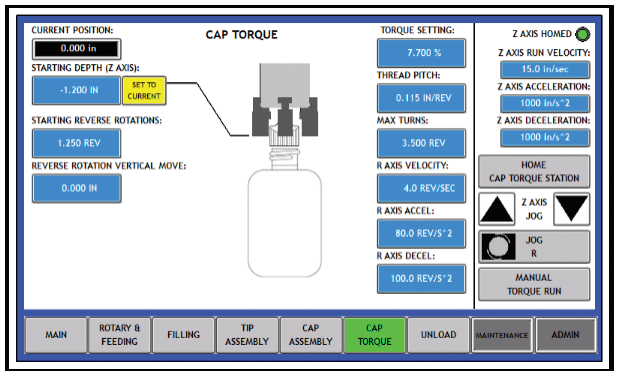
- Fill Volume
- Diving Nozzle (Servo) Programmable
- Snuff-back Control
- Additional Logic



Control Capping Torque & Cap Pitch

Cap files control the station with simple, graphical menu entry of pre-programmed parameters:

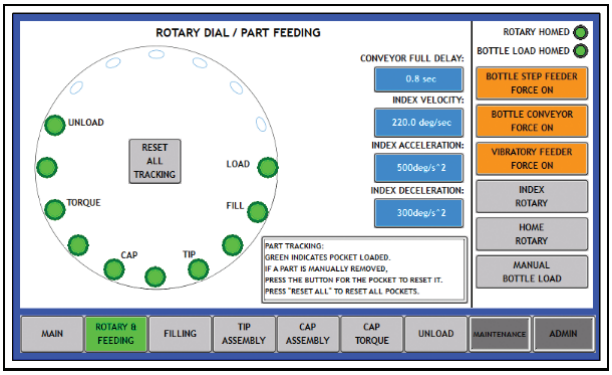
- Bottle Height
- Cap Thread Data
- RPM & Number of Turns
- Programmable Torque (Servo)



Vibratory Feeding Devices

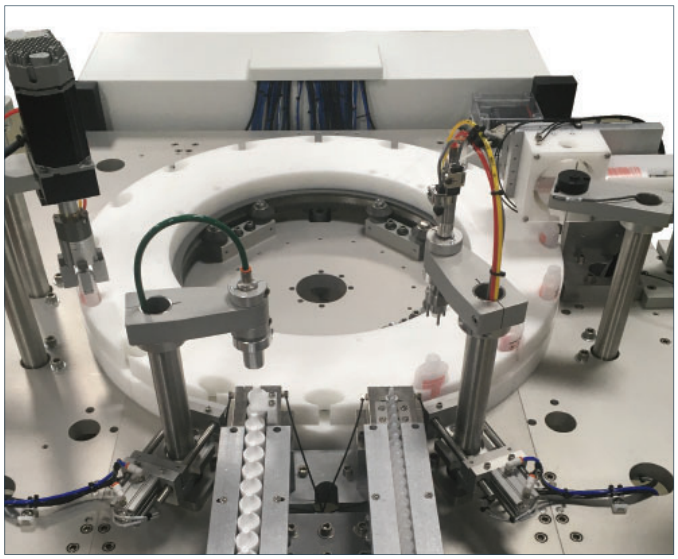
Part Feeding

The Ring Dex 2 uses various methods of feeding the different components of the parts into the machine, depending on nature of the components and how they are to be supplied. Step Feeders, conveyors and vibratory feeding devices are some of the types of feeders used. These are controlled with variable speed drives, with either manual adjustment or PLC controlled.



Rotary Dial

The rotary dial is a servo driven dial with a number of pockets, or dial positions. A pneumatic shot pin is used to lock the dial into position after each index. The rotary dial is used to move parts from station to station, where various operations are performed (filling, capping, etc.).



Machine Tool Quality

The machine base is constructed from a cast aluminum alloy precision machined for flatness, rigidity and stability to suit most dispensing applications.

The base remains stationary during the dispensing cycle as the mounted components move to feed, fill, cap etc. the bottles.

The base machine is configured from the factory for optimized speeds and accuracy. Over its many years of service very little maintenance is required.

Proven Existing Designs or Custom Solutions

Versatile and Affordable

These versatile, yet affordable robotic dispensing systems will automate and streamline your manual bottle or vial filling and capping operations. Choose from one of our time proven designs or let us customize a precision automatic vial and bottle filling solution to meet your needs.

About Us

All systems are designed & manufactured in our clean, state of the art facility on modern CNC equipment to the industry's most stringent quality control. Over 25,000 sq ft is dedicated to research / development & high tech assembly. Systems feature time proven designs with pre-engineered stations requiring minimal "custom" tooling for low risk, rapid deployment. In the effort of constant improvement, all specifications in this brochure subject to change.

Contact Us

For more information contact us at:

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