# SDAV HIGH TORQUE CA BENCHTOP AUTOMATION SYSTEM



SDAV-HT-CA-BA

### AirFree® Technology & Cyanoacrylate

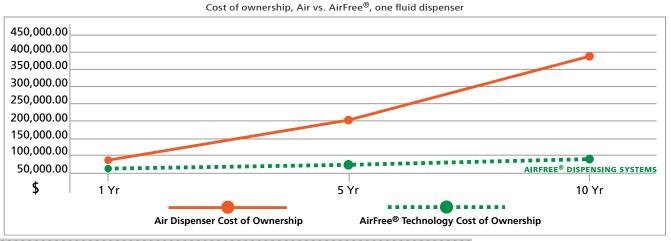
Traditional air pressure systems inject moisture filled air into the syringe reservoir activating the cyanoacrylate (CA) cure cycle. AirFree® technology eliminates moisture filled air from the dispensing process protecting the CA formulation. As a secondary safeguard Genius® CA components are made from proprietary plastics that inhibit CA bonding between components.

### AirFree® Technology & Automation

AirFree® technology acts as an additional axis when mounted on a benchtop automation system. The precise control engineered into the X, Y and Z axis is now applied to the fluid delivery axis. All axes are motor driven lead screws with known speeds and can be coordinated providing the highest precision and repeatability available on a benchtop robot.

### **Total Cost of Ownership**

#### AirFree® Technology Adds Profits When Replacing Air Driven Systems



**Fishman Corporation** 192 South Street, Hopkinton, MA 01748, United States US & Canada: 800-433-2115 | United Kingdom: 1905 456008 | Europe: +441905 456008 Worldwide: 1-508-435-2115 | www.fishmancorp.com



# SmartDispenser<sup>®</sup> sdav high torque ca benchtop automation system

#### **SDAV-HT-CA-BA Small Dot Any Viscosity**

| BARREL SIZE          | 3CC    | 5CC    | 10CC   |
|----------------------|--------|--------|--------|
| MIN.VOL. (CC)        | .00022 | .00038 | .00063 |
| MAX. VOL. (CC)       | 3.0    | 5.0    | 10.0   |
| MIN. RATE (CC/SEC)   | .005   | .009   | .016   |
| MAX. RATE (CC/SEC)   | .130   | .227   | .376   |
| MAX. BACKOFF (STEPS) | 500    | 500    | 500    |
| MAX. DELAY (SEC)     | 9.99   | 9.99   | 9.99   |
|                      |        |        |        |



The SmartDispenser® SDAV-HT-CA-BA (3-10cc) comes with 3-10cc Dispense Gun and 3, 5, 10cc Retaining Rings.

| BARREL SIZE          | 30CC   |  |
|----------------------|--------|--|
| MIN.VOL. (CC)        | .00123 |  |
| MAX. VOL. (CC)       | 30.0   |  |
| MIN. RATE (CC/SEC)   | .031   |  |
| MAX. RATE (CC/SEC)   | .741   |  |
| MAX. BACKOFF (STEPS) | 500    |  |
| MAX. DELAY (SEC)     | 9.99   |  |

The SmartDispenser® SDAV-HT-CA-BA (30cc) comes with 30cc Dispense Gun and 30cc Retaining Rings.

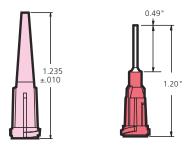
#### **Genius® Cyanoacrylate Dispensing Components**

Genius<sup>®</sup> CA dispensing components are designed from a proprietary plastic that prevents the CA from bonding the syringe piston to the syringe barrel and the syringe tip cap to the syringe luer.

### Genius<sup>®</sup> CA FreeFlow<sup>™</sup> Tips and Teflon<sup>®</sup> Tips

Genius<sup>®</sup> FreeFlow<sup>™</sup> CA Tips and Teflon<sup>®</sup>\* Tips both prevent CA from clogging the tip during the fluid dispensing process.

\*Teflon is a registered trademark of the Dupont Corporation.







#### SMARTDISPENSER<sup>®</sup> SDAV-HT-CA-BA 3–30CC DISPENSE STARTER KIT CONTENTS

- Foot Pedal
- Keyboard
- Mouse
- Earphone
- Video Camera
- Cisco Wireless Connectivity Device
- Needle Kit
- Manuals
- Power Supply Connection
- Universal Power Supply

















## SmartDispenser<sup>®</sup> sdav high torque ca benchtop automation system



#### **SPECIFICATIONS**

| Usage:                                | Indoor use  |                                  |
|---------------------------------------|---|----------------------------------|
| Altitude:                             | Up to 2000m   |                                  |
| Temperature:                          | 0° to 40° C   |                                  |
| Maximum Relative:                     | 80% for temperat<br>up to 31° C decrea<br>linearly to |                                  |
| Humidity:                             | 50% relative hum<br>at 40° C                          | idity                            |
| Mains Supply<br>Voltage Fluctuations: | Not to exceed ±10                                     | )%                               |
| Installation<br>Overvoltage:          | Category II   |                                  |
| Pollution:                            | Degree 2, Class 1                                     |                                  |
| Input Voltage:                        | 100-240 VAC<br>47-63Hz                                |                                  |
| Max Inrush Current:                   | 3.2A-1.8A   |                                  |
| Output Voltage:                       | 5.0VDC  |                                  |
| Output Power:                         | 4.6W  |                                  |
| Fuse Rating:                          | 1.0A/250 VAC  |                                  |
| Initiate Circuit:<br>Drive Motor:     | Dry contact<br>SDAV-HT-CA-BA                          | 1.8 Degree<br>200 Steps/Rev      |
| Axial Movement:                       | SDAV-HT-CA-BA   | .024 Axial Pitch<br>.00012"/Step |
| Control Circuitry:                    | CMOS microproce                                       | ssor                             |
| Interface:                            | Touch Screen or Ke                                    | yboard/Mouse                     |
| Minimum Dispense<br>Volume:           | 0.00022ml   |                                  |

#### **CONTROL UNIT**

Size: Weight:

5.6 x 9.9 x 6.3in (14.23 x 25.15 x 16cm) 4.7lbs (2.13 kg)

#### GUN

| Length:       | 7in (17.8cm)   |
|---------------|----------------|
| Weight:       | 10.6oz (301 g  |
| Cable Length: | 3 feet (91.5cn |

#### ır) n)

#### What makes the SmartDispenser® so smart? The combination of 3 powerful platforms.

#### **AIR-FREE MANUFACTURING**

- One program worldwide
- Closed-loop feedback
- 6-10X more repeatable than pneumatics
- Volume base numeric dispensing
- Positive displacement via stepper motor
- Firmware proven for over a decade
- Eliminates expensive air compressor
- Designed to integrate into automation systems using PLCs

- WINDOWS 7 NETWORKING
- SD Device to MES System Networking
- Remote programming and lock out
- Real time production data
- Live video feed
- Auto e-mail of unauthorized program changes
- On screen work instruction (audio option)
- Connectivity between SmartDispensers® Desktop, Laptop and Smartphone.
- Video/Audio training and tutorials

#### **SMARTPHONE FUNCTIONALITY**

- Touch screen
- Finger gesturing controls
- MES Networking Apps
- Custom Manufacturing Apps



US & Canada: 800-433-2115 | United Kingdom: 1905 456008 | Europe: +441905 456008 Worldwide: 1-508-435-2115 | www.fishmancorp.com

Fishman Corporation 192 South Street, Hopkinton, MA 01748, United States

# SmartDispenser<sup>™</sup> sdav high torque ca benchtop automation system

#### JANOME SPECIFATIONS

|  |   |                 | (CL) Indicates Clean Room Compatible |             |             |   |
|--|---|-----------------|--------------------------------------|-------------|-------------|---|
|  | Model <sup>*1</sup>                             | JR2203N<br>(CL) | JR2303N                              | JR2403N     | JR2503N     | JR2603N                                   |
| Operating Range                                      | X · Y Axes (mm)                                 | 200×200         | 300×320                              | 400×400     | 510×510     | 510×620                                   |
| Operating hange                                      | Z Axis (mm)                                     | 50              | 100                                  |             | 150         |   |
| Maximum Portable                                     | Workpiece(kg)                                   | 7               |                                      | 11          | 1           |   |
| Load   | Tool(kg)  | 3.5             |                                      | 6           |             |   |
| Maximum Speed <sup>*2</sup>                          | X · Y Axes (mm/sec)                             | 700             |                                      | 80          | 0           |   |
| <ptp movement=""></ptp>                              | Z Axis (mm/sec)                                 | 250             |                                      | 32          | 0           |   |
| Maximum Speed <sup>*2</sup><br><cp movement=""></cp> | X · Y · Z Axes Combined<br>Speed(mm/sec)        | 500             |                                      | 80          | 0           |   |
| Repeatability <sup>*3</sup>                          | X Axis • Y Axis (mm)                            | ±0.006          | ±0.0                                 | 07          | ±0.008      | ±0.008 (X<br>Axis )<br>±0.01 (Y Axis<br>) |
|  | Z Axis (mm)                                     | ±0.006          | ±0.0                                 | 07          | ±0.008      | ±0.008                                    |
| External Dimensions                                  | WxDxH(mm)<br>(excluding cables and protrusions) | 320×387×540     | 560×529×649.5                        | 584×629×799 | 676×731×799 | 788×731×799                               |
| Ма   | in Unit Weight(kg)                              | 18              | 35                                   | 42          | 46          | 48  |

|  | Model <sup>*1</sup>                             | JR2204N(CL) | JR2304N     | JR2404N     | JR2504N     | JR2604N     |
|--|---|-------------|-------------|-------------|-------------|-------------|
|  | X · Y Axes (mm)                                 | 200×200     | 300×320     | 400×400     | 510×510     | 510×620     |
| Operating Range  | Z Axis (mm)                                     | 50          | 100         |             | 150         |             |
|  | R Axis (°)                                      |             |             | ±360        |             |             |
| Maximum Portable                                       | Workpiece(kg)                                   | 7           |             | 1           | 1           |             |
| Load   | Tool(kg)  | 3.5         |             | (           | 6           |             |
|  | X · Y Axes (mm/sec)                             | 700         |             | 80          | 00          |             |
| Maximum Speed <sup>*2</sup><br><ptp movement=""></ptp> | Z Axis (mm/sec)                                 | 250         |             | 32          | 20          |             |
|  | R Axis (°/sec)                                  | 600         |             | 80          | 00          |             |
| Maximum Speed <sup>*2</sup><br><cp movement=""></cp>   | X · Y · Z Axes Combined<br>Speed(mm/sec)        | 500         |             | 80          | 00          |             |
|  | X Axis · Y Axis (mm)                            |             |             | ±0.01       |             |             |
| Repeatability*3  | Z Axis (mm)                                     |             |             | ±0.01       |             |             |
|  | R Axis (°)                                      |             |             | ±0.008      |             |             |
| External Dimensions                                    | WxDxH(mm)<br>(excluding cables and protrusions) | 320×387×655 | 560×529×840 | 584×629×890 | 676×731×890 | 788×731×890 |
| Ma   | in Unit Weight(kg)                              | 18          | 35          | 42          | 46          | 48          |

<sup>1</sup>2-axes models are also available. (Please contact us for further information.)

<sup>2</sup>Maximum speed cannot be achieved when the robot is bearing its maximum portable load.

<sup>'3</sup>Repeatability does not guarantee absolute precision.



**Fishman Corporation** 192 South Street, Hopkinton, MA 01748, United States US & Canada: 800-433-2115 | United Kingdom: 1905 456008 | Europe: +441905 456008 Worldwide: 1-508-435-2115 | www.fishmancorp.com

## SmartDispenser<sup>™</sup> sdav high torque ca benchtop automation system

| NOME SPECIFA               | TIONS CONTINUED  | <b>J</b> L<br>JL |
|----------------------------|--|------------------|
| ive Method                 | Pulse Motor  | _                |
| ontrol Method              | PTP (Point to Point) control, CP (Continuous Path) control   |                  |
| terpolation                | 3-dimensional linear and arc interpolation   | 1.               |
| eaching Method             | Remote teaching (JOG)/Manual Data Input (MDI)  |                  |
| eaching System             | <ul> <li>Direct teaching using the optional teaching pendant</li> <li>Off-line teaching with JR C-Points software from a PC</li> </ul> |                  |
| ogram Capacity             | 255 Programs   |                  |
| ata Capacity <sup>*4</sup> | Up to 30,000 Points  | Ň                |
| xternal Interface          | RS422 1ch (for teaching pendant)<br>RS232C 1ch (for PC interface: COM1)<br>RS232C 2ch (for external devices: COM2, COM3) (optional)    | 3                |
| kternal Input/Output       | I/O-SYS 16 Inputs, 16 Outputs<br>I/O-1 (optional) 8 Inputs, 8 Outputs (including 4 relay outputs)                                      |                  |
| mple PLC Function          | 100 programs (1,000 steps/program)   |                  |
| ower Source                | AC90~1323V/AC180~250V (single phase)   |                  |
| ower Consumption           | 200W   |                  |

FISHMAN

\*4 Point data capacity reduces as the total function data setting/point job data/sequencer data increases, due the shared data storage area.

· CE compliant models are also available.

· Specifications may be modified without prior notice to improve product quality.



SmartDispenser

21st Century Dispensing

Fishman Corporation192 South Street, Hopkinton, MA01748, United StatesUS & Canada: 800-433-2115| United Kingdom: 1905 456008| Europe: +441905 456008Worldwide: 1-508-435-2115| www.fishmancorp.com

