



# Hands-Free Cleaning® **DUOBOT 1850™**

SWEEPER / SCRUBBER - for hard surfaces

Ideal for Education | Healthcare | Retail | Warehouse | Manufacturing

Dual counter rotating brushes and large debris hopper allows DUOBOT 1850™ to thoroughly sweep and scrub in one pass.



## Cleaning just got easier:



Sensors provide 360-degree view that allows sweeper/scrubber to operate Hands-Free. Just prep, point and go.



Service components are easily accessible. Uses standard size industry brushes, pads and squeegees.



Uses up to 85% less water and cleaning solution per eight-hour shift. Accommodates most eco-friendly solutions.



No special training is required. The icon-based touchscreen prompts users through all functions, regardless of language or skill level.



Communicates with operator and generates detailed reports including login time, end of shift and areas cleaned.

The machines are operated by a unique icon-based touchscreen.



### INTELLIGENT FEATURES

|                           |  |
|---------------------------|--|
| <b>Main Computer</b>      | Monitors all functions; commands robot to perform stored cleaning routes               |
| <b>Drive Subsystem</b>    | Monitors and controls the robot's movement and position                                |
| <b>Controls</b>           | Manual and autonomous  |
| <b>Navigation</b>         | 15 sensors provide a complete, 360-degree view around robot                            |
| <b>Front Touch Shield</b> | Full width, ABS, touch-sensitive shield provides immediate braking                     |
| <b>Rear Touch Shield</b>  | Full width, ABS, touch-sensitive shield provides immediate braking                     |
| <b>Security</b>           | User-specific password protection to prevent unauthorized use                          |
| <b>Safety Systems</b>     | Sonar obstacle detection, infrared floor sensors, touch shields, emergency stop button |

### SOLUTION RECYCLING SYSTEM

|                         |  |
|-------------------------|--|
| <b>Solution Feed</b>    | Computer-controlled, adjustable flow rate to center of each brush                      |
| <b>Solution Tank</b>    | Integral 14-gallon (53-liter) molded high-density polyethylene with easy-access lid    |
| <b>Recycling System</b> | Four-stage automatic recycling system filters to 10 micron standard, 1 micron optional |
| <b>Vacuum Motor</b>     | Single 67 CFM vacuum   |

### BRUSHES AND SQUEEGEE

|                           |   |
|---------------------------|---|
| <b>Brushes</b>            | Two counter-rotating 25" (63.5 cm) cylindrical nylon bristle / plastic block, rotating at 800 RPM   |
| <b>Brush Drive Motors</b> | Two 24 VDC, .5 HP, 200 RPM, permanent magnet type, belt drive   |
| <b>Brush Head</b>         | Brushes are changeable without removing head from machine   |
| <b>Debris Collection</b>  | 1.15 gallon (4.4 L) molded high density polyethylene hopper   |
| <b>Scrubbing Width</b>    | 25" (63.5 cm)   |
| <b>Scrubbing Pressure</b> | 50 lbs. (22.68 kg)  |
| <b>Squeegee</b>           | 33.375" (84.77 cm), parabolic, self-centering swing style with plastic end rollers and quick-change, four-edge, reversible gum rubber blade |

### DRIVE SYSTEM

|                     |   |
|---------------------|---|
| <b>Drive Motors</b> | Two 24 VDC precision motors, built-in encoders, traction water displacement tread |
|---------------------|---|

### PRODUCTION

|                       |   |
|-----------------------|---|
| <b>Cleaning Rate*</b> | Approximately 10,000 sq ft (approx. 929 sq m) per hour (avg.) |
|-----------------------|---|

### BATTERY SYSTEM

|                              |   |
|------------------------------|---|
| <b>Battery Options</b>       | Sealed gel cell deep cycle, 180 AH, 24 VDC output                                 |
| <b>Run Time</b>              | Approximately four hours  |
| <b>Optional Exchange Kit</b> | Double the run time with no heavy lifting using the optional battery exchange kit |
| <b>Charger Unit</b>          | 20 amp, 24 VDC output; available in 115 or 230 VAC input options                  |

### CONSTRUCTION

|                       |   |
|-----------------------|---|
| <b>Frame</b>          | Powder-coated 5052 aluminum and stainless steel |
| <b>Exterior</b>       | High-density, molded, seamless polyethylene     |
| <b>Machine Height</b> | 43" (109.22 cm)                                 |
| <b>Machine Width</b>  | 32" (81.28 cm)                                  |
| <b>Machine Length</b> | 48" (121.92 cm)                                 |
| <b>Machine Weight</b> | 690 lbs. (312.9 kg)                             |

### ENVIRONMENT

|                    |   |
|--------------------|---|
| <b>Temperature</b> | 59° to 86° F (15° to 30° C) operation, -22° to 140° F (-30° to 60° C) storage |
| <b>Humidity</b>    | 20% to 75% relative humidity  |
| <b>Noise</b>       | 65 dBA normal operation   |



\* Cleaning rate may vary, depending on environment