

# CS7010™

## Hybrid & Battery Powered Combination Sweeper-Scrubbers



### GREENER. CLEANER. SMARTER.

The industry's first Hybrid and ePower™ Drive Combination Sweeper-Scrubbers slash your total cost of ownership.

The new green class of industrial cleaning technology has arrived.

In a single broad stroke, the Advance CS7010 Combination Sweeper-Scrubber reinvents an entire class of equipment by reducing total cost of ownership — including operation, labor and maintenance, while effectively doubling fuel economy and runtime efficiency. Now, the most economical solution is also the most ecological.

The CS7010 is available in three configurations: LPG/Gas-Hybrid, Diesel-Hybrid and ePower™ Battery. They all deliver unparalleled performance, while replacing power-hungry, high-maintenance hydraulic systems with efficient, state-of-the-art Electric Drive technology. Whichever model you choose, the CS7010 delivers the lowest cost of ownership and the most sustainable cleaning solution in its class.

ePower™ BATTERY EXTENDS RUNTIME BY 64%



HYBRID TECHNOLOGY DOUBLES FUEL EFFICIENCY



### Dedicated dry sweep and wet scrubbing for one-pass cleaning.

Like other combination sweeper-scrubbers, the CS7010 lets you sweep and scrub in a single pass. But that's where the similarities end. Compared to competitive dual cylindrical sweeper-scrubber designs, the CS7010 utilizes a cylindrical sweeping system and a separate disc scrubbing system. Dedicated sweeping and scrubbing functions with one-pass cleaning power keep dry debris dry without introducing scrub solution into the debris hopper. This provides operators and equipment owners with increased productivity and reduced maintenance.

### Lower total cost of ownership.

The CS7010 dispels the complexity and high maintenance of hydraulic systems that power conventional sweeper-scrubbers. We've eliminated large hydraulic reservoirs, filters and oil coolers as well as the leak-prone hydraulic hoses, pumps, motors and valves. Hydraulic drives have been replaced with an intelligent system of electronically-controlled, low-maintenance electric drives. This technology shift alone will save the average owner thousands of dollars in reduced maintenance costs.

### Standard Features Include

- Disc Scrub Deck with Integrated Edge Cleaning
- Breakaway Squeegee
- Ergonomic Operator Compartment
- High-capacity 75 gallon (285 L) Tanks
- Rear Wheel Steer
- High-capacity Donaldson PowerCore® UltraWeb® Nanofiber Synthetic Media Filter with MERV 13 Rating
- Intuitive Controls with One-Touch™ Operation
- IP55-rated Electric Motors
- Tilt-out Recovery Tank

### Optional Features Include

- EcoFlex™ System with Dual Detergent Cartridges
- Heated Water Supply
- Extended Scrub Recycling System
- Overhead Guard, Bumper Guards, Tail Lights
- Onboard Pressure Washer or Low Pressure Spray Hose

### Exclusive Features Include

- SmartFlow™
- Auto speed reduction in turns
- MaxAccess™
- DustGuard™
- ClearView™

### Typical Applications Include

- Warehouse / Distribution
- Manufacturing
- Parking Lots and Ramps
- Food and Beverage
- Transportation Facilities
- Stadiums and Arenas



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### ePower™ Battery

With an extended runtime rating up to 5.4 hours on a single charge, the CS7010 ePower model offers a new, low-noise, emission-free green solution for cleaning large facilities of up to 640,000 ft² (60,000 m²) per charge.\*

\*Measured run time using low scrubbing and sweeping mode at normal operating speeds on smooth floors (actual results will be application dependent)



### CS7010 LPG/Gas/Diesel-Hybrid

For indoor and outdoor operational versatility with extended runtime and high efficiency, the CS7010 electric Hybrid can save you thousands in fuel costs alone. Up to 30% lower fuel consumption and CO<sub>2</sub> emissions, resulting in up to 35% combined savings in fuel, consumables, and reduced labor operating expenses as compared to other machines in its class.

### SmartFlow™



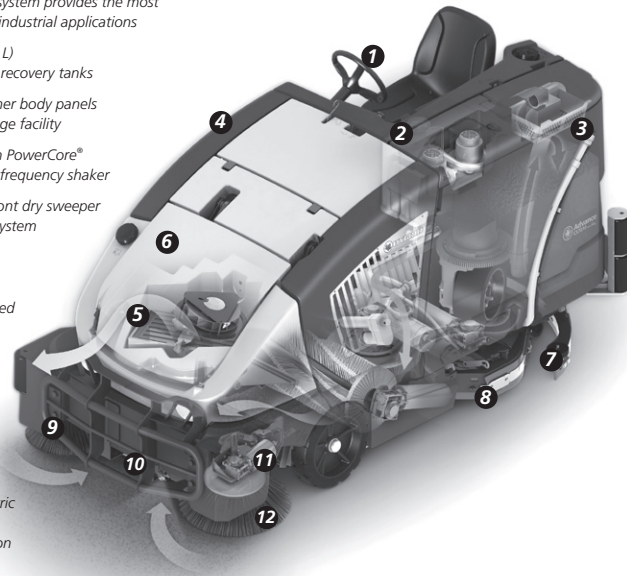
SmartFlow™ adjusts solution flow with the machine's speed, using less water and chemicals. Proportionally higher productivity with fewer dump and refill cycles per tankful.



### DustGuard™

Available as a popular option on the CS7010, our patented DustGuard™ technology is the only system of its kind. Using an ultra-fine fog it is proven to reduce airborne dust generated by side broom sweeping.

- 1 ClearView™ sightlines and automatic speed reduction in turns for safer operation
- 2 Optional dual-tank EcoFlex™ system provides the most flexible cleaning solution for industrial applications
- 3 High-capacity 75 gallon (285 L) corrosion-proof solution and recovery tanks
- 4 High impact-absorbing polymer body panels won't dent, corrode or damage facility
- 5 High performance Donaldson PowerCore® nanofiber filter with variable-frequency shaker
- 6 High-capacity 7 ft³ (198 L) front dry sweeper debris hopper with high-lift system
- 7 Breakaway squeegee with tools-free servicing
- 8 Disc scrub deck with integrated edge cleaning capability and SmartFlow™ technology
- 9 Heavy-gauge industrial steel unibody frame
- 10 Available with patented DustGuard™ airborne dust suppression technology
- 11 Electronically-controlled electric drives are IP55 rated for easy cleaning and reliable operation
- 12 Standard dual side brooms sweep entire squeegee path to minimize fouling



## Industrial Strength Solutions...

- Our products are designed using innovative technology that increases productivity and drives down the cost to clean.
- You can get expert service and maintenance for your Advance machines from factory-trained personnel around the world. Fast parts delivery, too.
- Maintain peak performance with Nilfisk Parts.

## Technical Specifications

Models	CS7010 Battery	CS7010 LPG/Gas Hybrid	CS7010 Diesel Hybrid
Configuration	Independent front dry sweeping w/dust control and rear scrubbing functions Electronically controlled electric drives for all sweeping and scrubbing functions Electrically driven hydraulic power unit for hopper raise/lower functions		
<b>Sweeping System</b>			
Sweeping Path w/Dual Side Brooms	61 in (154 cm) - Squeegee path width is fully swept		
Main Broom	36 in (90 cm) x 12.2 in (31 cm)		
Sweeping Coverage Rate Per Hour	146,400 ft² (13,600 m²)		
Dust Control System	115 ft² (10.7 m²) Donaldson high-capacity PowerCore® UltraWeb® filter w/synthetic media. Variable frequency automatic filter shaker		
Hopper Dump Height (Max.)	60 in (152 cm)		
Hopper Capacity	7 ft³ (198 L) / 300 lb (136 kg)		
DustGuard™ Tank Capacity¹	29 gal (110 L)		
<b>Scrubbing and Recovery Systems</b>			
Scrubbing Path and Brushes	48 in (122 cm) - 3 x 17 in (43 cm) disc		
Scrubbing Coverage Rate Per Hour	118,600 ft² (11,000 m²)		
Scrub Pressure	Three scrub pressure settings up to 400 lb (182 kg) of down force at maximum setting		
Recovery/Solution Tank Capacity	75 gal (285 L) each		
Recovery Vacuum	Dual vac fan motors capable of 65 in (165 cm) waterfall		
<b>Power and Propulsion Systems</b>			
Power System	Battery: 36 V / 770 Ah	Kubota WG972: 3 cyl., 0.96 L 30 hp (22.0 kW)	Kubota D1305 ³: 3 cyl., 1.26 L 29 hp (21.7 kW)
Propulsion System	Variable speed brushless A/C drive		
Propel Speed (Variable)			
Transport	5.5 mph (8.9 km/hr)		
Sweeping/Scrubbing	3.5 mph (5.6 km/hr) w/override capability		
Operational Run Time	5.4 hrs. w/770 Ah battery	LPG - 5.5 hrs. w/32 lb (14.5 kg) tank Gas - 5.9 hrs. w/9.2 gal (35 L) tank	15 hrs. w/9.2 gal (35 L) tank
Gradeability			
Transport @ Gross Weight	21% (12 deg.)		
Scrubbing/Sweeping	17.6% (10 deg.)		
<b>Dimensions / Weight / Sound / Environmental</b>			
Length	103 in (262 cm)		
Width	48 in (122 cm)		
Height	[59 in (150 cm)] [82 in (208 cm) std. overhead guard] [79 in (201 cm) low clearance overhead guard]		
Minimum Aisle Turn	104 in (264 cm)		
Weight			
GVW	5,716 lb (2,593 kg)	4,676 lb (2,121 kg)	4,537 lb (2,058 kg)
Empty	4,682 lb (2,124 kg)	3,636 lb (1,649 kg)	3,511 lb (1,593 kg)
Sound Level (IEC60335-2-72)	72 dB A	82 dB A	81 dB A
Water Ingression	All electric drive motors and actuators rated IP55 for water washdown		

Specifications are subject to change without notice.

¹DustGuard™ optional

²Measured run time using low scrubbing and sweeping mode at normal operating speeds on smooth floors (actual results will be application dependent)

³Meets EPA emission standards under 40 CFR 1039.625

CS7010 models shown in photos may feature optional accessories

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