

State of North Carolina

DOT Sweeper

Market Application Publication



The Problem

The current system was too small for the working environment. Previous pre-cleaner bearings would freeze in less than 300 hours. This meant replacing filter elements 1 to 2 times daily.

Why was Racor chosen as the solution?

Racor offers a new larger filter (ECO XL13 with a safety element) and a new Racor Spin-Aire pre-cleaner. They saw the benefit of a larger element with more surface area. In addition the bearing system in our pre-cleaner provided a more shielded bearing, eliminating high amounts of dust.



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How the Solution Works:

Racor's Spin-Aire pre-cleaner separates the larger amounts of dirt and spins the large dirt out before it reaches the air filter element. This reduces the amount of wear and build up on element filters allowing for extended filter element life, reducing costs and maintenance.

Application:

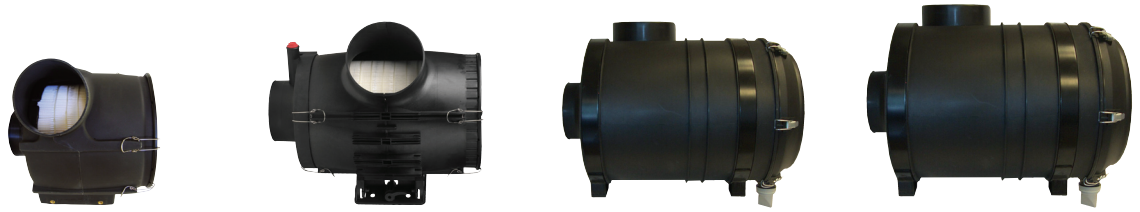
The State of North Carolina is currently utilizing both Racor's ECO XL13 with a safety element Air Filter and the new Spin-Aire pre-cleaner on a Street Sweeper.

INTERNAL USE ONLY



ENGINEERING YOUR SUCCESS.

ECO III



| Assembly Number: With Safety Filter Without Safety Filter | N/A 500235002 | 500250012 500251012 | ECO-III-XL 13S ECO-III-XL 13 | ECO-III-XL15S ECO-III-XL15 |
|---|------------------------------------|------------------------------------|------------------------------------|--------------------------------------|
| Mounting Clamps | N/A | N/A | 071921010 (2 required) | 071921009 (2 required) |
| | ECO III LH | ECO III | ECO III XL13 | ECO III XL15 |
| Primary Filter | 500293112 | 500247012 | 500454001 | 500375001 |
| Safety Filter | N/A | 500233000 | 500455001 | 500443001 |
| Diameter | 12.3 in. (31.2 cm) | 13.0 in. (33.0 cm) | 13.0 in. (33.0 cm) | 15.0 in. (38.1 cm) |
| Width | 14.1 in. (35.8 cm) | 20.5 in. (52.1 cm) | 22.0 in. (55.9 cm) | 24.0 in. (61.0 cm) |
| Air Flow | 700 CFM (19.8 m ³ /min) | 900 CFM (25.5 m ³ /min) | 800 CFM (22.7 m ³ /min) | 1,000 CFM (28.3 m ³ /min) |
| Inlet | 5.0 in. (12.7 cm) | 7.0 in. (17.8 cm) | 6.0 in. (15.2 cm) | 7.0 in. (17.8 cm) |
| Outlet | 5.0 in. (12.7 cm) | 6.0 in. (15.2 cm) | 6.0 in. (15.2 cm) | 6.0 in. (15.2 cm) |

Spin-Aire Pre-cleaners



| Specifications | 123583440 | 123583550 | 123583660 | 123583665 | 123583770 | 123583990 |
|-------------------|----------------------|-----------------------|-----------------------|-----------------------|-------------------------|------------------------|
| Maximum Flow Rate | 300 CFM (8.5 CMM) | 520 CFM (14.7 CMM) | 740 CFM (21.0 CMM) | 580 CFM (16.4 CMM) | 1190 CFM (33.7 CMM) | 1850 CFM (52.4 CMM) |
| Height | 4.8 in. (12.2 cm) | 7.1 in. (18.0 cm) | 7.1 in. (18.0 cm) | 7.1 in. (18.0 cm) | 7.3 in. (18.5 cm) | 8.1 in. (20.3 cm) |
| Weight | 5.0 lbs (2.3 kg) | 8.0 lbs (3.6 kg) | 9.0 lbs (4.1 kg) | 8.0 lbs (3.6 kg) | 11.0 lbs (5.0 kg) | 14.0 lbs (6.3 kg) |
| Diameter | 8.3 in. (21.1 cm) | 10.6 in. (26.9 cm) | 12.3 in. (31.2 cm) | 10.6 in. (26.9 cm) | 14.1 in. (35.8 cm) | 17.1 in. (43.4 cm) |
| Inlet Diameter | 4.0 in. (10.2 cm) | 5.0 in. (12.7 cm) | 6.0 in. (15.2 cm) | 6.0 in. (15.2 cm) | 7.0 in. (17.8 cm) | 9.0 in. (22.9 cm) |

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