



# **POWERBOSS**

# NAUTILUS SERIES NAUTILUS - NAUTILUS - NAUTILUS - HD

Industrial-Grade Rider Scrubber/Sweepers



PowerBoss Nautilus is positively extreme in every aspect. With its extraordinarily high levels of power and maneuvrability as well as its robust design, this combination machine provides maximum output for use in extra-large areas with a superior cleaning performance of up to 163,611 ft²/h. And its large capacity allows particularly long operating times: 120 minutes at standard water-flow level and 70 minutes at high water-flow level. This means extremely efficient operation!



#### Professional cleaning results on a large scale

The PowerBoss Nautilius achieves professional cleaning results in large areas. Its superior capacity, robust design and clever features make this scrubber-sweeper ideal for a wide range of applications in cleaning environments such as:

- Food processing industry
- Logistic centers & Warehouses
- Multi-story car parks
- Heavy industry
- Bottling plants
- Aircraft hangars

### Robust design - powerful dirt removal

The PowerBoss Nautilus is made of robust stainless steel components, which not only protects the machine against damage but also significantly reduces maintenance costs. The combination of a high-suction turbine-speed, anti-skid traction tires and an integrated Power System using powerful hydraulic motors make this scrubber-sweeper extremely efficient.

### Robust stainless steel components

This machine has many stainless steel components as a standard:

- Cylindrical brush unit including lateral maintenance doors & door hinges
- Lateral and rear squeegee frame including squeegee fittings
- Debris hopper

- Practical 1-button operating system
- Powerful hydraulic engines
- High-performance suction turbine
- Easy access for service and maintenance purposes
- Robust stainless steel components



#### Powerful against stubborn dirt

Two powerful hydraulic motors drive the two 45" cylindrical brushes of the PowerBoss Nautilus at 425 rpm. Even the most stubborn dirt doesn't stand a chance against the machine's brush pressure, which can be adjusted from 200–400 lbs. The high-performance suction turbine provides completely dry floors immediately after cleaning to prevent the risk of slipping and allow forklift or foot traffic to travel safely behind the machine.

# Economically efficient: Easy access for service and maintenance purposes

Carrying out maintenance work on the combi machine PowerBoss Nautilus is particularly easy and economic, thanks to its many benefits:

- Tool-free removal of the motor cover.
- 360°-access to the motor, radiator, suction motor, hydraulic pump and tank
- 1-button operating system controls all the functions.
- Front-axle steering and traction tyres enable complete U-turns in narrow aisles.
- Two 114-cm cylindrical brushes powered by hydraulic motors provide excellent cleaning results.
- Practical hydraulic high dump.
- Large solution and recovery tank allows up to two hours of runtime.

### **Special Features**

## **Designed with Attention to Detail**



1-button operating sytems: All functions can be started and stopped at the push of a button.



Available in both standard & hi-dump, emptying your scrubber/sweeper has never been easier. This allows for simple disposal via dumpster or trash can.



Working in confined areas: PowerBoss Nautilus has a small turning circle. This machine can make a complete U-turn in aisles as narrow as 108 inches. allowing the operator to keep an eye on the surrounding traffic at all times.



All clean: The large draining hose ensures fast draining of the recovered water. Two large openings at the top of the tank as well as an 8 inch inspection opening provide easy access to the recovery tank.



Safety first: PowerBoss Nautilus can be equipped with an optional overhead guard.



Quick visual checks: The squeegee tilts up to allow quick visual checks and easy changing of the sealing strips.



Easy changing of the brushes: Thanks to the quick-change system, changing the cylindrical brushes is particularly easy, no tools needed.



Working close to edges: The optional side scrub unit allows cleaning right up to walls.

# Engine Feature Comparison

### **ENGINE ATTRIBUTE**

Engine Valve Timing Mechanism -Coordination of motion of pistons and valves

Potential for Pistons to Contact

Valves -Interference Design

Engine Head and Block Material -

### **POWERBOSS® WITH KUBOTA**

Internally geared camshaft. Lubricated and protected from dirt and designed for the life of the engine.

Due to internal lubricated camshaft timing failure.

gears have minimal risk of valvetrain

Cast iron block and head with comparable thermal expansion rates reducing stress on head gaskets and cylinder head bolts.

### **TENNANT® WTIH MITSUBISHI®**

External timing belt. Exposed to dirty application conditions that can compromise belt life. Periodic replacement is required, or there is a risk of catastrophic failure.

If timing belt slips or breaks, extensive damage to the valves, cylinder head, pistons, crankshaft, and bearings may occur, resulting in expensive repairs.

Cast iron block with aluminum cylinder head have differingthermal expansion rates, placing greater stress on the head gasket.

### **KUBOTA® ADVANTAGE**

Power | Reliability

Higher reliability and uptime. Reduced maintenance. No risk of catastrophic damage to valves due to timing belt failure. Designed to run reliably in tough industrial applications.

Virtually no risk of unplanned and expensive engine down time and repair due to timing issues.

A Kubota design cast iron cylinder

head mated to the cast iron cylinder block is better suited to industrial applications for long-term durability. Whereas typical automotive-based engine designs are optimized for higher maximum power output, reduced weight, and minimal production cost (aluminum head/cast iron block). Kubota's use of common materials between the cylinder head and block reduces stresses in the gasketed joints resulting in long-life. This minimizes the likelihood of random head gasket failures and associated downtime in high hour usage applications.

Crankshaft Bearings and Cylinder Block

High capacity crankshaft bearings and cylinder block designed for diesel engine loads for long life.

Crankshaft bearings and block optimized for lighter duty automotive usage of gasoline.

Kubota main bearings are more heavy duty in design since they are based on the diesel platform; this provides greater reliability and longer life. More rigid engine structure on engine block (since borrowed from diesel) results in less radiated noise and vibration.

Parts and Service Availability

World renowned for their reliability and for their parts and service network when needed.

Limited support network, but does not carry the same reliability nor service access reputation.

Well established quality reputation and service network to stand behind their products.

# Technical Data NAUTILUS AT A GLANCE

SPECIFICATION
55,000 sq ft per hour
45"
60"

MAIN BRUSHES	
Diameter	12"
Length	45"
Speed	425 RPM
Pressure	200-400 lbs

SIDE SCRUB BRUSH W/ VAC	CUUM
Diameter	16"
Speed	200 RPM

NAUTILUS TANKS	
Solution Capacity	105 gallon
Recovery Capacity	105 gallon
Demister Chamber	17 gallon
NAUTILUS HD TANKS	
Solution Capacity	90 gallon
Recovery Capacity	90 gallon
Demister Chamber	15 gallon



HOPPER & DEBRIS TRAYS	SPECIFICATION
Nautilus Debris Trays' Total Capac	ity 2.1 cu ft
Nautilus HD Hopper Capacity	3.9 cu ft (390 lbs)
Nautilus HD Dump Height	60"
VACUUM FAN	
Speed	11,500 RPM
Water Lift	35"

DIMENSIONS	
Length	95"
Frame Width	55"
Rear Squeegee Width	56"
w/ Side Scrub Brush	65.5"
Height	60.5"
Height w/ Overhead Guard	83.5"
Weight (Empty)	3,250 lbs
Gross Vehicle Weight	4,800 lbs
Minimum Aisle U-Turn	107.7" (8'-11.7')
PROPELLING SYSTEM	
Fuel Source	Gasoline, LPG, Diesel
Engine Make	Kubota
Forward Speed	7.7 MPH
Reverse Speed	4.0 MPH
Gradeability - Traveling	10 Degrees
Gradeability - Scrubbing	8 Degrees
Tires - Front	16" x 6" molded
Tires - Rear	18" x 5" press-on

### Thermal Green Technology (TGT) Option

Adding to the already impressive cleaning power of the Nautilus & Nautilus HD, the TGT system is a patented, and quite clever, hot water system that passively heats the cleaning solution using the heat generated by the engine's catalytic converter. Virtually maintenance free, TGT eliminates the need to use additional energy to heat the solution, therefore it lowers the cost of energy and shrinks your business' carbon footprint. Any need for additional detergents to break down dirt will be greatly reduced and, in some cases, not necessary at all. You simply have to see this the TGT system in action as it revitalizes your facility's floors.

A FAMILY COMPANY SINCE 1967

