



# Lithium-Ion Battery Technology

**A smarter way to power worry-free cleaning.**

Zero maintenance. Zero hassles. Maximum cleaning productivity.

## Key Benefits



Zero maintenance



Long battery life



Simplified operations



Safer facilities



Maximized productivity

# Spend more time cleaning. Spend zero time worrying.

**Make sure your equipment is ready to go all day**, every day with Tennant lithium-ion batteries powered by Samsung SDI technology. Create a true zero-maintenance power source: no battery watering, no fuel-tank replacement and storage, and no engine maintenance. With Tennant lithium-ion batteries, your machines are always ready to go, your operators spend more time cleaning – and you spend zero time worrying.

## Key Benefits



### Zero Maintenance

No more battery watering. No more engine maintenance. No worries.



### Long Battery Life

Tennant's lithium-ion battery has a life of 2,000+ charge cycles. This means fewer battery replacements.



### Simplified Operations

No need to train or learn complicated charging processes because opportunity charging does not reduce battery life.



### Safer Facilities

Improve indoor air quality and reduce the risk of accidents by eliminating exposure to flammable fuels and battery acid.



### Maximized Productivity

Optimize equipment uptime by spending more time cleaning and less time dealing with your power source.

## Tennant Li-Ion vs. LPG/Diesel/Gas Fuel

### Reduce cost to clean – and enhance safety.

- Improved Uptime: Full-shift cleaning without fuel tank filling/changing
- Lower Costs: Zero engine maintenance, fuel costs, fuel storage costs, shop supply costs and significantly reduced training costs
- Enhanced Safety: Zero fuel emissions, no flammable fuels on-site and lower dBA sound levels
- Sustainable Cleaning: Eliminate reliance on non-renewable natural resources

## Tennant Li-Ion vs. Lead-Acid Batteries

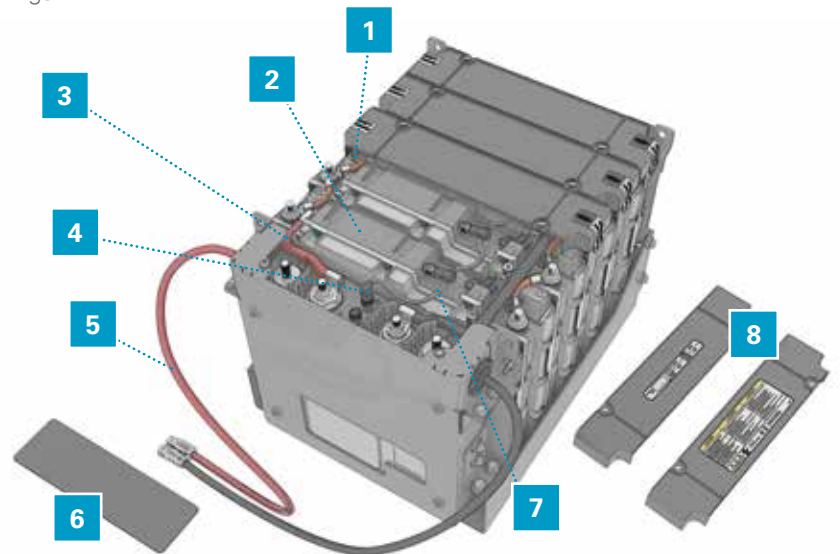
### Maximize fleet performance – at a great value.

- Improved Uptime: Fast charging, longer runtimes and opportunity charging to minimize idle time
- Great Value: Eliminates all worries associated with traditional wet batteries
- Low Operating Costs: Fewer battery replacements, no battery watering, lower charging costs and minimal training required
- Enhanced Safety: No risk of encountering battery acid and no harmful gases produced during charging

# Tennant Lithium-Ion Technology: A Custom-Integrated Solution

Tennant Lithium-ion batteries are designed and assembled for Tennant equipment. This full, custom integration of Samsung SDI technology with Tennant equipment delivers several safety, efficiency and performance advantages over third-party offerings.

1. **Battery Module Power Cable**
2. **Battery Modules**
3. **Battery Module to BMS Cable**
4. **Battery Management System (BMS)**
5. **Battery Pack Power Cables**
6. **Battery Management System Cover**
7. **Communications Cable**
8. **Battery Module Covers**



## Key Features

### Leading Edge Lithium Technology

Lithium-ion battery technology powered by Samsung SDI provides **exceptional energy density for longer runtimes** than other battery types.

### Fully Integrated Design

Unlike many lithium-ion batteries, each Tennant lithium-ion battery is fully integrated with the Tennant machine for **worry-free operations**. The machine and battery turn on/off with the machine's key switch, the battery discharge indicator is always visible, and the scrubbing function shuts down at 95% depth of discharge leaving enough power to get to a charging area.

### Battery Management System (BMS)

An intelligent system provides continuous communication between battery and machine to **protect the user and equipment** from unsafe operating conditions.

### Proven Samsung SDI Technology

Samsung SDI is the world's largest supplier of lithium-ion technology and the **undisputed leader of lithium-ion innovation**. Samsung SDI lithium-ion technology effectively and reliably powers electric cars, e-scooters, power tools, golf carts and more.

### 5-Year Warranty & Tennant Support

A comprehensive 5-year warranty\* backed by unmatched Tennant service support and expertise **provides peace-of-mind**.

*\*see warranty for full details*

### Proven in the Most Extreme Environments

Powered by leading-edge Samsung SDI technology, Tennant's lithium-ion batteries are a proven power source in rigorous applications and environments. Extensive testing by both Tennant and Samsung SDI ensures these, as well as meeting UL and UN 38.3 standards for safety.

# Lithium-Ion Availability Chart

Lithium-ion batteries are available on select Tennant equipment.



LITHIUM BATTERY SIZE		T600/T600e	T12	T16	T17	M17	S16
4.1 kWh	110 AH	✓	✓	✓			✓
8.2 kWh	221 AH	✓	✓	✓			✓
10.2 kWh	276 AH	✓	✓				
12.2 kWh	331 AH			✓			✓
18.4 kWh	497 AH				✓		
38.8 kWh	1049 AH				✓	✓	

## Leasing Programs Available

Tennant offers a range of flexible leasing options that bring your fleet the advantage of Tennant Lithium-Ion technology, while giving your organization the benefit of shifting steady, predictable payments into OpEx budgets.

Contact your Tennant sales representative to see how lithium-ion technology can help your operations.

# Tennant – Reinvent how the world cleans

With a vision to become a global leader in sustainable cleaning innovation that empowers our customers to create a cleaner, safer and healthier world, Tennant creates solutions that are changing the way the world cleans.



### We are where you are

Tennant has the industry's largest direct sales and service organization and a well-supported network of authorized distributors worldwide.



### Solutions for your unique needs

Whatever your cleaning needs, Tennant offers a variety of high quality equipment to help you increase your cleaning productivity.



### Buying, leasing, renting

We offer flexible options to get you the machines you need, however you need them.



### TennantTrue®

Optimize equipment performance and protect your investment with TennantTrue® parts and service.

For a demonstration or additional information, call **+1.800.553.8033** or email **info@tennantco.com**

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