



# **Lithium-Ion** Battery Technology

**A smarter way to power worry-free cleaning.** Zero maintenance. Zero hassles. Maximum cleaning productivity.

#### **Key Benefits**



## Spend more time cleaning. Spend zero time worrying.

**Make sure your equipment is ready to go all day,** every day with Tennant lithium-ion battery 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 nonrenewable natural resources

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

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

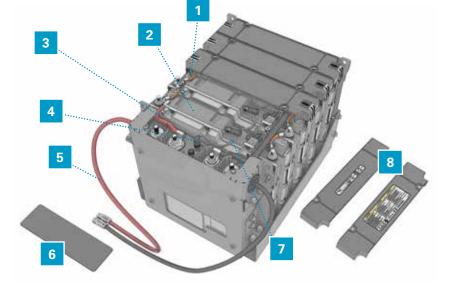
- Improved Uptime: Fast charging, longer runtimes and opportunity charging to minimize idle time
- Great Value: Eliminates all worries associated with traditional wet batteries
- Low Operating Costs: Fewer battery replacements, no battery watering, lower charging costs and minimal training required
- 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. The battery's integration with the machine delivers several safety, efficiency and performance advantages over third-party offerings.

- 1. Battery Module **Power Cable**
- Management
- 2. Battery Modules
- **3. Battery Module** to BMS Cable
- 4. Battery Management System (BMS)
- 5. Battery Pack **Power Cables**

- 6. Batterv **System Cover**
- 7. Communications Cable
- 8. Battery Module Covers



### **Key Features**

#### Leading Edge Lithium Technology

Lithium-ion battery technology 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.

#### 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**

Tennant's lithium-ion batteries are a proven power source in rigorous applications and environments. Extensive testing 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		T16AMR
12.2 kWh	331 AH	$\checkmark$



#### 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.



#### Buying, leasing, renting

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



#### Solutions for your unique needs

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



#### Tennant*True*®

Optimize equipment performance and protect your investment with Tennant*True®* parts and service.

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

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#### Tennant

701 North Lilac Drive Minneapolis, MN 55422 USA

USA/Canada: +1.800.553.8033 Quebec: +1.800.361.9050 Overseas: +1.763.540.1315

www.tennantco.com | info@tennantco.com