

**ENERGIZING IDEAS** 



## **CORNELL DUBILIER**

A privately-held company headquartered in Liberty, SC, Cornell Dubilier is a technology leader and manufacturer of high quality capacitors used in demanding industrial, medical and military/aerospace applications.





#### CDE CORE PRODUCTS



- Screw Terminal
- Snap-in
- Flatpack
- Axial and Radial
- SMT

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- DC Link
- Snubber
- Axial and Radial
- SMT

- 1Ø and 3Ø Harmonic Filters
- Power Conversion
- Motor Run
- HID Lighting

- RF Dipped
- RF Clad
- SMT
- Transmitting

#### OUR MOST RECENT ACQUISITION



#### Illinois Capacitor SEARCH BY PARAMETER

>> EDLC/Supercapacitors

>> Aluminum Electrolytic

>> Aluminum Polymer

>> Film

» Power Film

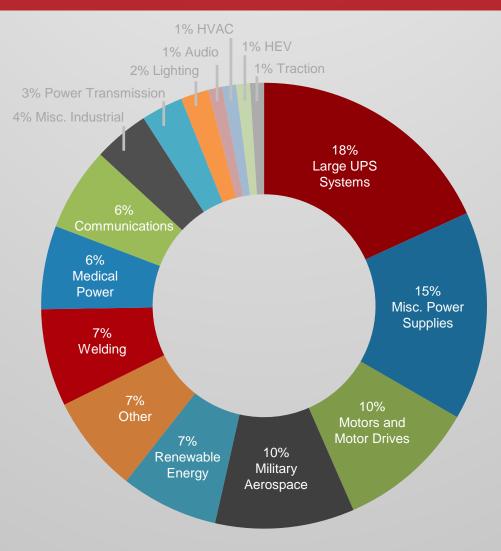
>> Class X2 / AC & Motor Run



Supercap Modules

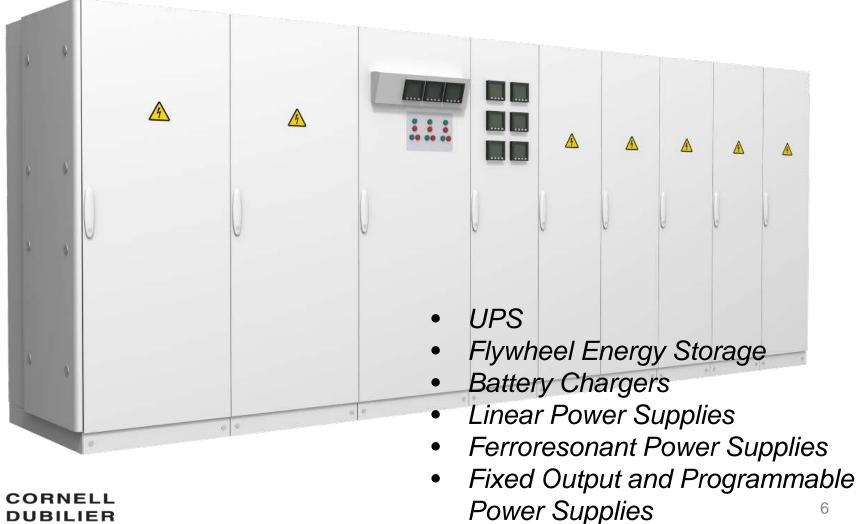


### MARKETS





#### Where CDE capacitors are used POWER SUPPLY AND BACKUP



ENERGIZING IDEAS

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#### Where CDE capacitors are used INDUSTRIAL

- Welders 0
- Motors and Motor Drives
- Motion Control Elevators HVAC Systems

CORNELL CD/É DUBILIER

## Where CDE capacitors are used MILITARY AND AEROSPACE

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• Radar

CDÉ

- Commercial and Military Aircraft Power Supplies
- Cockpit
  Communications

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Black Box Recorder

## Where CDE capacitors are used MEDICAL



- X-ray
- Lasers
- **RF Ablation**

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 Oxygen Concentrators



## Where CDE capacitors are used RENEWABLE ENERGY

- Grid Tie and Commercial PV Inverters
- Wind Inverters

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Fuel Cell Inverters

# Where CDE capacitors are used LIGHTING

- HID Lighting
- Professional Photography
- Strobe
- LED



## Where CDE capacitors are used AUDIO

Audio Amplifiers Guitar Tone Circuits Battery Stiffening RF Tuning Circuits

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### **GLOBAL OEM PARTNERS**







visions, innovations, solutions,





analogic

ENERGIZING IDEAS

CORNELL

DUBILIER





Powering Business Worldwide

**POWERING YOUR FUTURE** 













BAE SYSTEMS

NORTHROP GRUMMAN



ks

Technology for Productivity

Rockwell

Power and productivity

for a better world"





ADVANCED

Better technology. Better results.





#### EXPERTS IN EVERY INDUSTRY APPLICATION

CDE CORNELL DUBILIER Whether your project requires a standard capacitor or a custom solution, our engineers will work with your team to arrive at the optimal solution.

#### OUR ENGINEERS ARE EAGER TO COLLABORATE



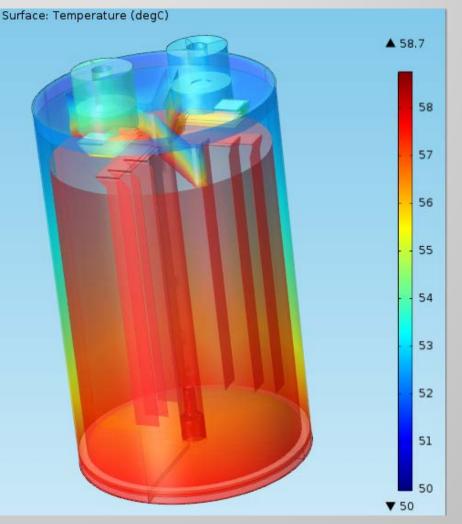
#### INNOVATION DRIVEN BY RESEARCH



## OUR TECHNOLOGY

R&D Center located in Liberty, South Carolina.

- Advancing aluminum electrolytic technology, especially in the area of prismatic form factors
- Thermal and physical modeling of capacitors using COMSOL
- Advanced electrical and physical testing and analysis techniques



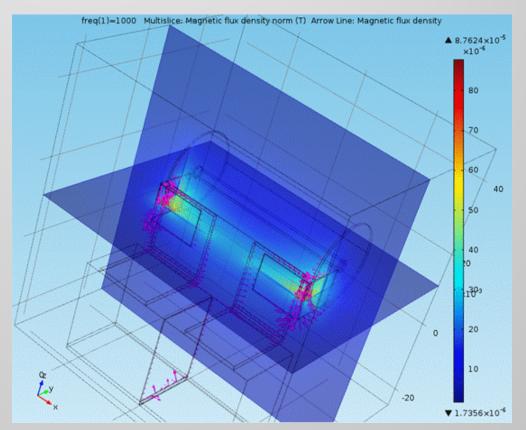
COMSOL THERMAL MODEL OF SCREW TERMINAL ELECTROLYTIC



## OUR TECHNOLOGY

AC and DC Film Capacitor Development Center Located in New Bedford, Massachusetts.

 Advancing AC and DC film technology to remain at the forefront of capacitor development in this dielectric technology



COMSOL MAGNETIC FLUX DENSITY MODEL OF IGBT SNUBBER



### FACILITIES

- Liberty, SC: Corporate headquarters, Aluminum Electrolytic R&D Center and manufacturing
- New Bedford, MA: Distribution Center and Engineering Development Center for AC and DC Films
- Mexicali, Mexico: Manufacturing
- Chicago, Illinois: Logistics center and Illinois Capacitor Customer Service Center for OEM Sales
- Kwun Tong, Kowloon, Hong Kong: Asia Sales and logistics center



#### Manufacturing Facility: 15,000 M<sup>2</sup>, 205 People, 12 Engineers LIBERTY, SOUTH CAROLINA

CDE CORNEL

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Home of CDE Headquarters and our principal manufacturing site for Screw Terminal Aluminum Electrolytic and Transmitting Mica Capacitors.

# Manufacturing Facility: 15,000 M<sup>2</sup>, 205 People, 12 Engineers LIBERTY, SOUTH CAROLINA



#### 37,000 M<sup>2</sup>, 48 Employees, 8 Engineers NEW BEDFORD, MA

Located 60 miles south of Boston, this facility services all of the company's distribution business with thousands of stocked SKUs. It is also our Engineering Center for all Film

and Mica Capacitor products.





CDE Manufacturing Facility: 11,000 M2, 363 Employees, 11 Engineers MEXICALI, MEXICO

SLEEVING

EMBARQUE



CURLING

AGING

Located just across the Southern California border, this facility is the largest mica capacitor factory in the world. Capacitors manufactured here include:

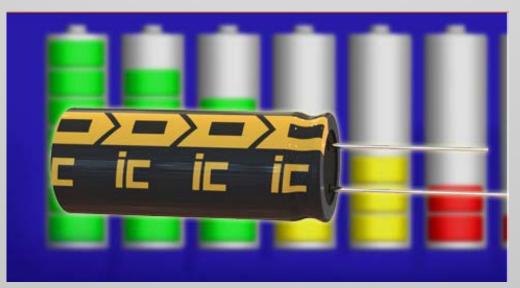
- Snap-in Aluminum Electrolytic Capacitors
- AC Power Film Capacitors
- DC Film Capacitors
- IGBT Snubbers
- Mica Capacitors

CDE Manufacturing Facility: 11,000 M<sup>2</sup>, 363 Employees, 11 Engineers **MEXICALI, MEXICO** 



#### 3,000 M<sup>2</sup>, 19 Employees, 2 Engineers CHICAGO, ILLINOIS

Located in the Chicago area, this facility houses operations for Illinois Capacitor Customer Service, Engineering, Warehousing and Logistics.





## Asia Sales and Logistics: 1,500 M<sup>2</sup>, 19 Employees, 2 Engineers HONG KONG

Our Asia sales office and logistics center is located in Kwun Tong, Kowloon, Hong Kong. Staffed with 19 people including sales engineers, customer service personnel, application engineers and technicians.





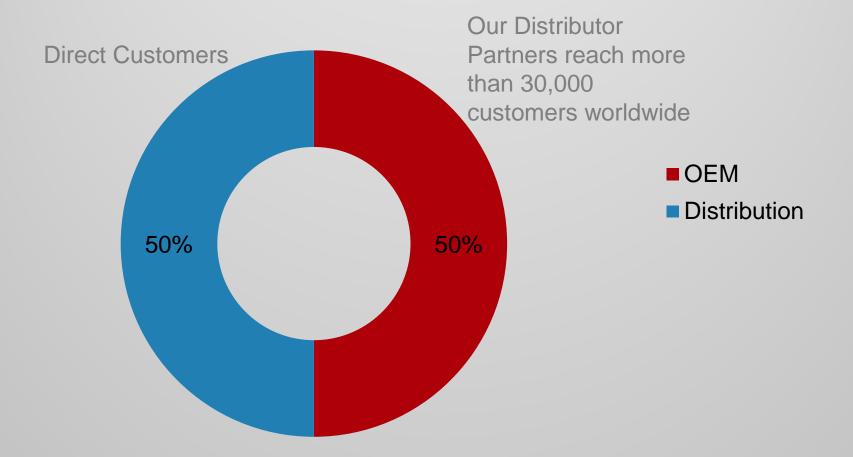
### **GLOBAL SALES CHANNELS**

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CDE International Sales Offices are conveniently located in North America, Asia and throughout Europe.



### GLOBAL SALES CHANNELS





#### **GLOBAL DISTRIBUTION PARTNERS**





## THE CDE ADVANTAGE

- We have a broad portfolio of standard capacitor products for Power Electronics
- We excel with applications and custom capacitor designs for critical applications
- Global logistics, sales and distribution network
- Access to CDE engineers



