



ENHANCING ENERGY EFFICIENCY AND SUSTAINABILITY IN BATTERY MANUFACTURING

A REVIEW OF ANDRITZ SOVEMA EQUIPMENT

SEPTEMBER 3, 2025

ANDRITZ

ANDRITZ GROUP KEY FINANCIAL FIGURES 2024



ORDER INTAKE
8.3 billion EUR

(2023: 8.6 billion EUR / -3%)

GROUP REVENUE
8.3 billion EUR

(2023: 8.7 billion EUR / -4%)

ORDER BACKLOG
9.75 billion EUR

(2023: 9.9 billion EUR / -1,2%)

EBITA
713 MEUR

(2023: 742 MEUR / -3,91%)

EBITA MARGIN
8.9%

(2023: 8.7%)

NET INCOME
(incl. non-controlling interests)
496.5 MEUR

(2023: 504 MEUR / -1.5%)

CLOSE TO OUR CUSTOMERS, IN MORE THAN 80 COUNTRIES



AROUND **30,000**
EMPLOYEES WORLDWIDE



OVER **280**
LOCATIONS



OVER **80**
COUNTRIES

WORLD MARKET LEADER WITH FOUR BUSINESS AREAS



PULP & PAPER



METALS



HYDROPOWER



ENVIRONMENT & ENERGY



SCHULER

DIVISION PRESS
LINES &
HYDRAULIC

DIVISION
BATTERY

DIVISION
SERVICE

DIVISION SINGLE
PRESSES & LASER
SOLUTIONS

DIVISION
INTELLIGENT
TOOLING
SOLUTIONS

ORGANIZATION



DIVISION BATTERY

Göppingen, GER

 **DIVISION BATTERY**
GÖPPINGEN, GER



CELL ASSEMBLY

 **SOVEMA**
VERONA, ITA



- **TURNKEY SOLUTIONS FOR LEAD-ACID BATTERY MANUFACTURING**
 - CELL FINISHING
- **ADVANCED CELL MANUFACTURING TECHNOLOGIES**

 **BITRODE**
ST. LOUIS, USA



BATTERY TESTING
DIGITAL SCIENCE

 **SERVICE NETWORK**
WORLDWIDE



ON-SITE & REMOTE SERVICE & TECHNICAL EXPERTISE

OUR VALUES



EFFICIENCY



- Global engineering with strategic partner & subsidiary in Asia
- Over 15 years exercises in Europe in lithium battery equipment & power electronics
 - State of the art machine performance with low scrap rate

RELIABILITY



- Equipment & Turnkey solution provider since over 180 years
- European standard robustness based on proven technology
- Service network in over 280 locations

INNOVATION



- Integration of advanced digital technology
- Strong involvement in European research and industrial network
- Joint Development Program with partners

SUSTAINABILITY



- Long-term validity of investment
 - Continuous improvement
- Energy efficient & environment friendly

ANDRITZ SOVEMA SOLUTIONS FOR ENERGY EFFICIENCY



We aim at **energy efficiency** to reduce waste and environmental damage, meeting European standards and keeping the product quality high.

Two examples of products aiming at these goals:

- **Cold Lead Cubing Machine**
- **HD Chargers**



SOVEMA COLD LEAD CUBING MACHINE



Cold lead cubing machine



Cylinder Casting Machine

**OXIDE
PRODUCTION**

**GRID
MAKING**

**MIXING &
PASTING**

CURING

ASSEMBLY

FORMATION

FINISHING

KEY ADVANTAGES



Performance	Cold Lead Cubing	Cylinder Casting
Dross production	👍	👎
Energy consumption	👍	👎
Manpower	👍	👎
Oxide quality	=	=
Environmental impact	👍	👎
Ease of installation	👍	👎

KEY ADVANTAGES



Low
environmental
impact



Cost savings



Oxide quality



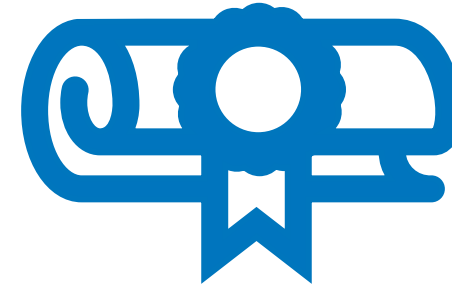
User friendly

SOVEMA COLD LEAD CUBING MACHINE AWARDED BY THE U.S. DEPARTMENT OF ENERGY



EnerSys Wins 2024 U.S. Department of Energy Better Project Award

April 4, 2024



READING, Pa.--(BUSINESS WIRE)--Apr. 4, 2024-- [EnerSys](#) (NYSE: ENS), the global leader in stored energy solutions for industrial applications, has been awarded the Better Project Award from the U.S. Department of Energy (DOE) Better Plants Program for implementation of the [Sovema Cold Cube](#) cutting system. This award is the [second](#) award that EnerSys has received in two years from the DOE, underscoring the company's commitment to sustainability, energy efficiency, and innovation within the manufacturing industry.

SOVEMA HD CHARGERS



LEAD-ACID
FORMATION

LI-ION
FORMATION

E-MOBILITY
CHARGING
SOLUTION

KEY ADVANTAGES



Features	Benefits	Value for Customer
- 90-94 Efficiency both during charge & discharge	- Less heat load for HVAC system	- Long life - Money savings
- 99% Power Factor Efficiency both during charge & discharge	- No need for power factor correction	- Money savings
- Very new Spurious Harmonics (Total Harmonic Distortion less than 5%)	- No need for harmonic distortion correction - No harmonic resonance in the power grid	- Money Savings

KEY ADVANTAGES



Features	Benefits	Value for Customer
<ul style="list-style-type: none">- Modular design allowed by galvanic insulation among circuits and w.r.t. AC input stage	<ul style="list-style-type: none">- No electric shocks → fewer risks- Containment of electric failures at the circuit level- Fewer converters for the same number of tanks in Water Bath or Acid Circulation Systems- Hot swap lower downtime	<ul style="list-style-type: none">- High safety standards- Money savings- Keeping productivity high
<ul style="list-style-type: none">- Fast Service System (our exclusive feature) allowed:- Autodiagnostics with safety check sensors- Internal debug system- Remote service capability	<ul style="list-style-type: none">- Fast response & intervention time- Low downtime- Easy maintenance	<ul style="list-style-type: none">- Money savings

KEY ADVANTAGES



Money savings



High productivity

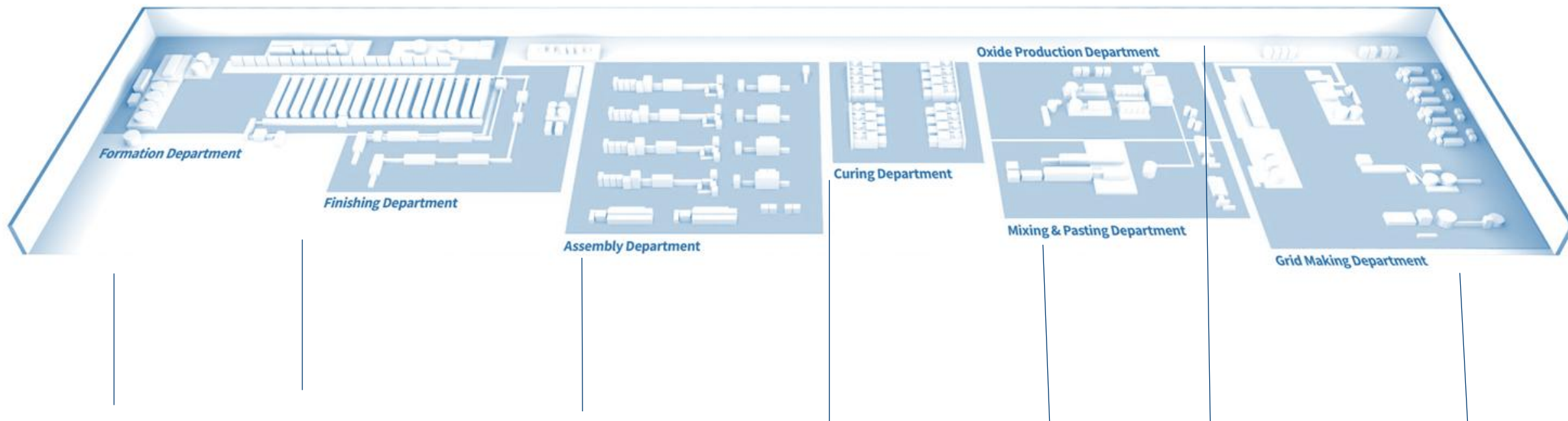


Long life



High safety

ENERGY EFFICIENCY ON EVERY PROCESS STEP





SOVEMA – NOW WITH THE POWER OF ANDRITZ.

ROOTED IN LEGACY. DRIVEN BY INNOVATION

ANDRITZ

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