




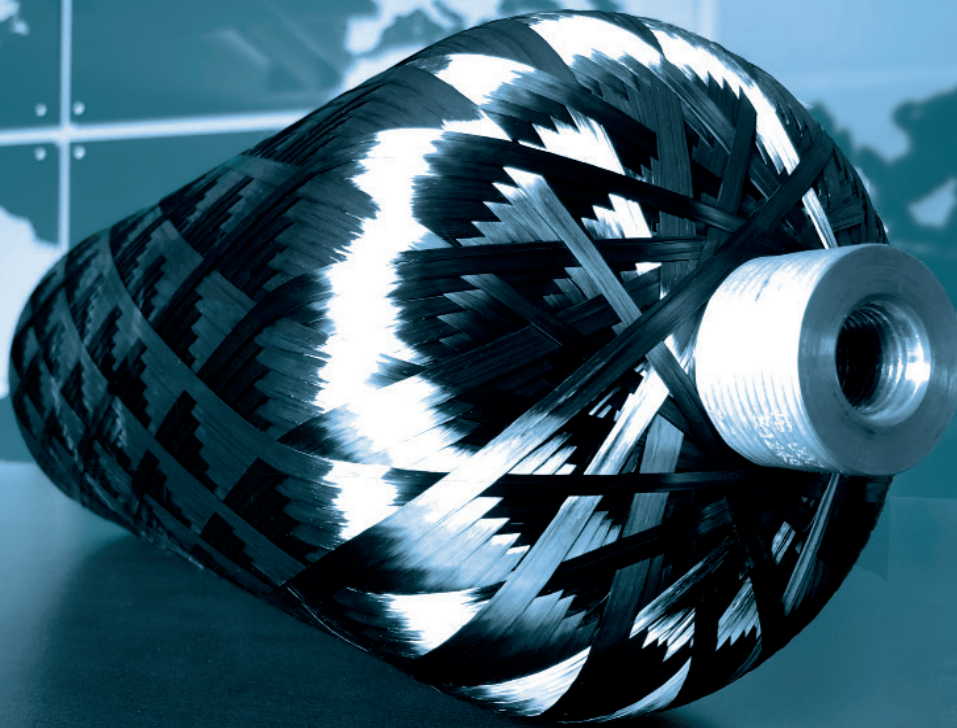
ENGINEERING TECHNOLOGY CORP.

 Toray Group




GLOBAL EXPERT FILAMENT WINDING & COMPOSITE SOLUTIONS

MORE THAN MACHINES



www.entec.com | +1 (801) 486-8721 | sales@entec.com

 Toray Group

 DESIGNED & MADE IN THE USA







ZOLTEK 
Toray Group

Half a century of experience, tried and trusted design practices, years of cost reductions, and decades developing custom filament winding systems have led our company to a competitive catalog of standardized filament winding machines.

Standard options range from laboratory scale table top winders, specifically made for winding test coupons, up to multi-spindle automated pressure vessel winders with industry leading fiber payout. Our machines are designed and fabricated exclusively in Salt Lake City, Utah, USA by quality oriented craftsmen to last decades.

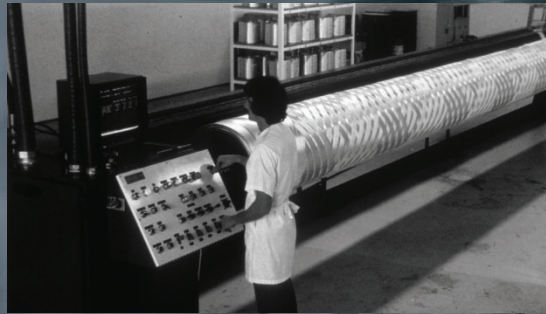
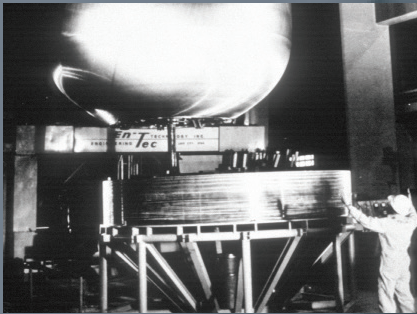
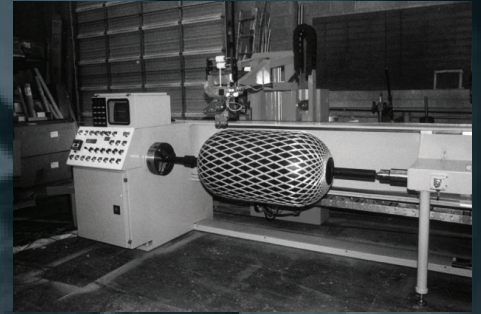
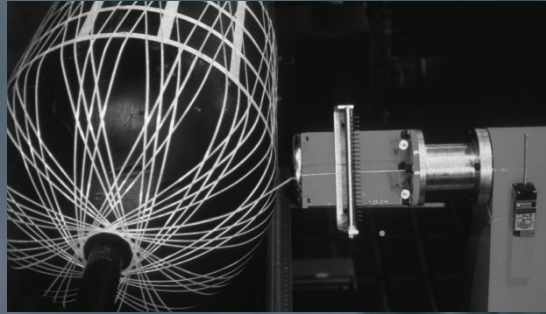
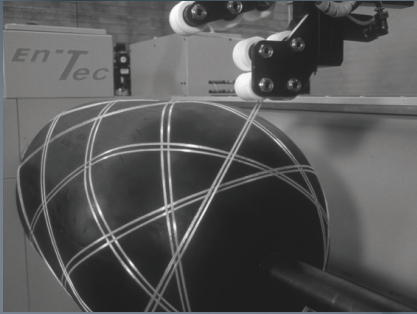
In addition to standard winding solutions, our experts provide onsite machinery installation, process integration, and training.

Catalog of Standard Filament Winders

		SS	SS+	SM	SM+	CXG	SL/SL+
Maximum Mandrel Weight	lbs	50	50	750	1000	1000	5000+
	kg	23	23	340	454	454	2268+
Mandrel Diameter	inches	1-12	1-12	1-24	1-36	1-16	5-80
	mm	25-305	25-205	25-610	25-914	25-406	25-2032
Maximum Mandrel Length	inches	80	80	192	240	192	192+
	mm	2000	2000	5000	6000	5000	5000+
Number of Spindles		1	1	1	1-8	3-5	1
Number of Axes		2	3-4	2-4	2-5	4	2-6
Speed*							

* Variable characteristic based on wound part specifications

MORE THAN MACHINES



OVER 50 YEARS OF TRUSTED SERVICE

ABOUT ENGINEERING TECHNOLOGY CORPORATION

Engineering Technology Corporation has been a worldwide leader in the filament winding and composite manufacturing industry since its founding in 1962. We developed the first CNC filament winder and pattern generating software, FiberGrafIX®, and have installed over 750 filament winders globally. The majority of these winders are still in operation today.

In March 2014 Engineering Technology Corporation was acquired by Toray Group, combining the filament winding experience of Engineering Technology Corporation and the carbon fiber manufacturing capabilities of both Zoltek™ and Toray. This partnership allows us to provide customers with comprehensive solutions for manufacturing composite parts.

The evolutionary spirit that began in the '60s continues today with innovations to stay ahead of customer and industry needs.

Engineering Technology Corporation
2975 South 300 West
Salt Lake City, UT 84115, USA
Phone: +1 (801) 486-8721 | Fax: +1 (801) 484-4363
www.entec.com | sales@entec.com

STANDARD FILAMENT WINDERS DESIGNED WITH THE CUSTOMER IN MIND

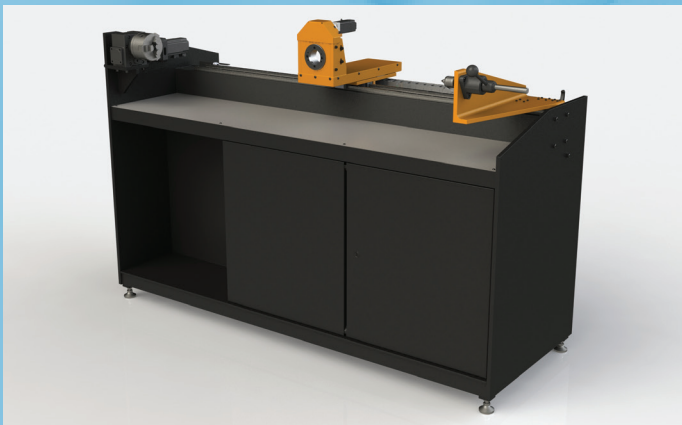
SS Filament Winder



Small Package – Big Results

- Ideal for R&D or educational use
- 2 accurate axes of motion
- Versatile wet winding and towpreg delivery

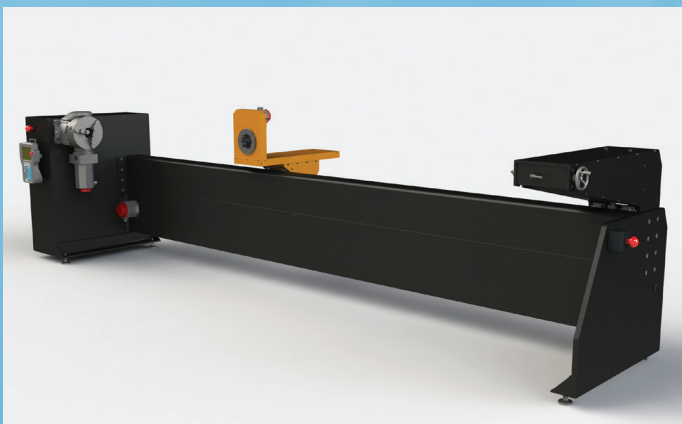
SS+ Filament Winder



Upgraded Motion

- Ideal for small production applications
- All the benefits of the SS with 3 or 4 axes of motion
- Integrated cabinet, table and storage

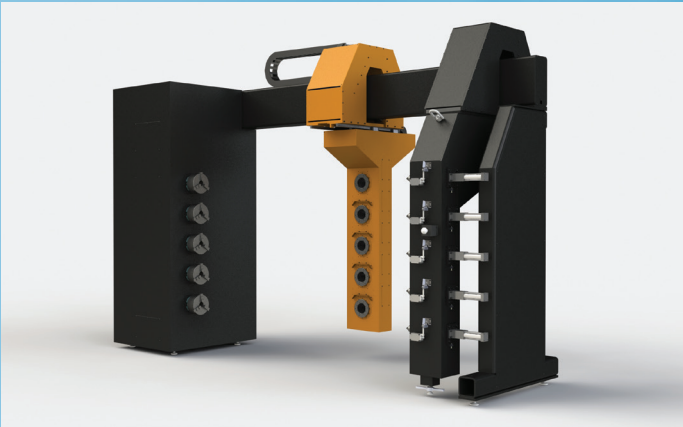
SM Filament Winder



Affordable Production Winding

- Medium envelope part production
- 4 axes of motion in a portable platform
- Robust, compact, sleek

SM+ Filament Winder



Upgraded Spindle Count

- Medium envelope part production
- High volume capability
- Up to 5 axes of motion
- Up to 8 spindles

CXG Filament Winder



High Speed CNG or CHG Winding

- Developed for high volume automotive applications
- 4 axes of motion
- Light weight dual drive carriage

SL & SL+ Filament Winders



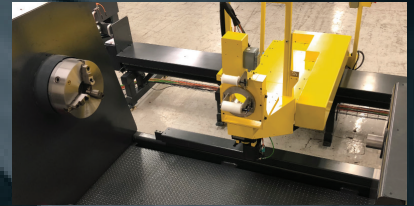
Large Format Winders

- Ideal for Aerospace, Oil & Gas
- Large format work horse
- Up to 6 axes of motion

COMPLETE SOLUTIONS FOR THE FILAMENT WINDING INDUSTRY

Custom Filament Winders

As a worldwide leader in the filament winding industry, we strive to create innovative solutions unique to the needs of our customers.



Upgrades & Retrofits

Our extensive experience in the industry allows us to provide service and repair for all brands and ages of filament winding machines.



Product Development

We offer a large variety of product development services; including: composite and pressure vessel design, analysis, prototyping, testing, and training.



FiberGrafIX®

Proven software for filament winding pattern generation and optimization. This unique product simplifies the manufacturing process and includes an advanced machine motion editor and FEA* mesh generator.



Auxiliary Equipment

We provide supporting equipment including ovens, tensioners, extractors, and everything required to meet your composite production needs.



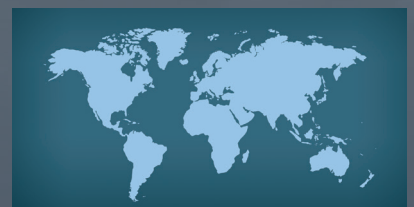
Automation

As a FANUC Authorized Systems Integrator we can provide streamlined material handling, part processing, tracking, and inspection; greatly improving any process' efficiency or accuracy.



Customer Support

Our highly trained staff is available to solve your technical and production challenges across the globe.



* FEA: Finite Element Analysis