

# *Cut Seal Sew*

**Military, Commercial,  
and Industrial  
Engineered Fabric  
Products Manufacturer**

**CNC Fabric Cutting • Fabric Heat-Welding  
Contract Sewing • Solvent Ink Jet Printing  
Dye Sublimation Printing • Engineering/Design  
Product Development**

**CELINA<sub>e</sub>**

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[www.CutSealSew.com](http://www.CutSealSew.com)





Celina is a division of Celina Tent Incorporated. We are a family owned business and qualify as a small, woman owned business.

We manufacture a comprehensive array of products designed to meet the sophisticated demands of today's marketplace. Our products consist of but are not limited to flexible, laminated, coated films and fabrics requiring converting and/or fabrication.

We have over 48,000 square feet of manufacturing space and 45,000 square feet of warehouse space within the towns of Celina and Coldwater, OH. Our facility and warehouse are located within just 30 minutes from I-75 and 1 hour from I-70.

## **Capabilities**

Fabric Welding • Cutting / Converting  
Contract Sewing • Wide format digital printing  
Surge Capacity • Engineering / Design  
Product Development • Quality Assurance  
Proving Grounds • Printing • Labeling  
Packaging / Shipping

## **Experience with**

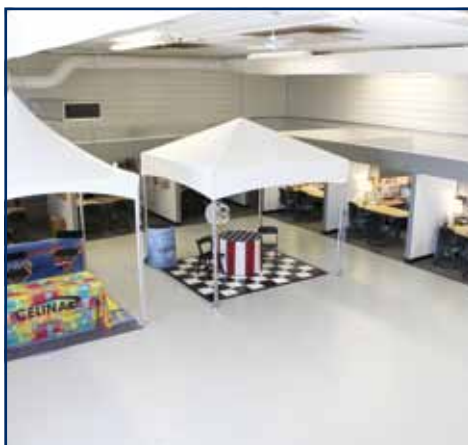
Mil Specs • Buy American Act  
Berry Amendment • Snow Loads  
Wind Loads • Seismic Loads

## **Markets**

Industrial • Government / Military  
Agricultural • Recreation  
Environmental • Marketing

## **Products**

Tarps • Building Facade  
Industrial Divider Curtains • Tents  
Machine Covers • Poultry Curtains  
Industrial Curtains • Industrial Ventilation  
Oil Booms • Banner Blanks  
Inflatable Products



# Fabric Cutting

Celina specializes in contract fabric cutting. Our equipment for this process includes 2 automated conveyor cutting systems, slitting equipment, die presses, and sheeting equipment. We work closely with various manufacturers everyday to fulfill their cutting needs. Whether its fiberglass, mesh, PVC, Kevlar, foam, canvas, or nylon, Celina can meet your fabric cutting demands.

## **Contract Fabric Slitting**

Celina's in house slitter is designed to handle light-duty slitting jobs for materials that can be cut with a razor blade. This machine can be easily set-up and run by one operator. The design keeps the web path as short as possible to avoid any contaminants, scratching, or wrinkles that can be introduced to the web when traveling over numerous idler rollers. Our slitter can slit rolls up to 75" in width.

### Machine Capacities:

- 18" Diameter Unwind Roll
- 12" Diameter Duplex Rewind
- Speed/Tension Capacity: 150 FPM @ 1.5 pli constant RPM machine
- Material rolls must be on 3" diameter cores

## **Sheeting**

Sheeting requirements that have a tolerance under 1/16 of an inch would be ran on 1 of our 2 automated conveyor cutting system. This machine is very accurate and versatile. Another piece of equipment used for sheeting is our Multi Sealer. This machine is PLC driven, has an electromagnetic braking system on the unwind stands, and has an automatic cutting system. Although this machine is typically used for welding applications, it can also perform high volume sheeting

## **Pattern Cutting**

Celina's automated conveyor cutting systems perform with precision accuracy to within hundredths of an inch. All projects are first laid out in an AutoCAD file and then transferred to the Eastman. This machine enables our engineering staff to make precision cuts and label any construction marks needed during the manufacturing process. The system has a heavy duty automatic unwind stand for large rolls of material to be laser guided and fed into the cutting system. This is a fairly advanced piece of equipment and not all manufacturers have access to it. Other manufacturers typically have a layout table where they use patterns, scissors, and other cutting tools to achieve the same end goal. This system is much more efficient and accurate while significantly reducing production errors.

Celina has multiple **Swing Arm Clicker Presses**. These machines are used for a wide variety of die cutting applications. The most common uses are cutting soft to semi-rigid materials such as leather, cork, rubber, elastic and other like materials.

## **Automatic Hot Knife Cutting Machine**

This machine enables us to cut rope, webbing, velcro, and other rolled goods very efficiently. With this machine we just set the length we need to cut, the quantity needed, and press start. This machine eliminates the need for a person to measure the length, and then bring the material to a hot knife to cut it.



CNC Fabric Cutters



Multi Sealer



Slitting



Hot Knife Cutting Machine



Clicker Press



Webbing

# Welding & Sealing



Bar Sealer

Celina works with multiple customers every day providing them contract fabric welding services. We currently offer three types of welding to our customers including hot air, hot wedge, and RF (radio frequency) welding. Celina has the capabilities to weld virtually any thermoplastic material in the market today. Our state of the art equipment and facility enables Celina to be very competitive while manufacturing our customer's products.

## RF Welding

Celina currently uses 3 types of RF machines. The first and most common is the bar sealer. These machines are equipped with long straight bars ranging from 1" x 13" up to 2" x 48". This equipment enables us to do long straight RF welded seams. The second type of machine is a platen sealer. These machines have a large 24" x 48" top plate. This large plate allows us to place a variety of different die shapes and sizes between the welding bed and the top plate to achieve endless weld shapes. The 3rd is Traveling RF Welding. We can fabricate almost any die shape to fit our customer's needs. Please call to discuss your needs today.



Platen Sealer



T-100 Miller Welder



T-500 Miller Welder



Custom Die Shapes



Traveling RF Welder

# Welding & Sealing



Manufacturing Facility

## Hot Air Welding

Process used to join thermo plastic industrial fabrics & films utilizing hot air & pressure. Heat temperatures can range from 1000° to 1375°

## Seam Taping

Uses heat activated tape to seal acrylic fabrics. The tape has adhesive on both sides to bond acrylic fabrics. This process is commonly used for awnings and boat covers.

**Hand held heat sealing** – Celina’s employees have been trained to use hand held heat guns. During this process the worker takes the gun which blows hot air out of a nozzle, and places it between the material they are welding. Then they begin moving down the weld following it with a silicone hand roller. This is a skilled position that takes a significant amount of training.



Hot Air Welding



Seam Taper



60' Hot Air Welder



Hand Held Heat Sealing



112' Hot Air Welder

# Contract Sewing & Finishing

At Celina, we provide clients with innovative and creative solutions to their sewing needs. Our clients range from small business owners to industrial & government agencies. Our core competency is load control straps, custom covers, industrial curtains and tarps.

Whether it is a new concept or an existing product, we will accommodate all your contract prototype sewing requirements. Present your idea, a sample or drawing and we will create your product. We will assist you from prototype to finished contract prototype sewing product.

Some of our standard sewing equipment includes:



Sewing Cell

Celina has capabilities to do other miscellaneous operations. More of the operations available are shown below.

**Grommets** – Celina has multiple automatic grommet machines. The machines are automatic feed and pneumatic powered. These machines set #3-#6 brass spur grommets.



Long Arm Double Needle Machines



Programmable Box Trackers



#3 Grommet Machine



Heavy Duty Single Needle Machines



Binding Machines



#6 Grommet Machine

# Materials & Hardware

Celina works with many types of flexible materials. We can help in material selection and recommend the most suitable material for your application/product. Some of the material we work with are listed below.

PVC - P(oly) V (inyl) C(hloride)

PE - Polyethylene

PP - Polypropylene

UHMWPE - Ultra High Molecular Weight Poly Ethylene

Polyester

Nylon

Kevlar

EVA Blends - E(thylene) V(inyl) A(cetate)

PU - Urethane

Polypropylene

Canvas

Cotton

Mesh / Screen

EVA Blends



Materials



Materials



Raw Materials Mezzanine

# Proving Grounds, Labeling & Packaging

The Celina proving ground is located at our Celina, Ohio manufacturing site. The proving grounds are located on 40+ acres. It is dedicated to tent and shelter long term use testing.

Tent designs are proven through prolonged exposure to the elements.

The facility includes:

- A 30 acre test field
- 50 foot man made hill for maximum exposure to elements
- Elevation - 876 feet (267 meters)



Celina's custom labels come in a variety of colors and sizes to fit any of your label needs.

We use industrial grade, chemical-resistant, durable vinyl that last for years - indoors and out! Our labels can be made 1/2" wide to 4" wide and come in a wide variety of colors. Our standard, 3.0 mil vinyl provides strong, durable labels for most of your labeling applications.

Cloth labels can be sewn directly to your product, which range in size from 1/2" X 1/2" up to 6" X 11"

Celina will manufacture your product under your private label and drop ship directly to your customer.

Celina can fulfill the most demanding packaging requirements. Whether it is for Government C.3.11 packaging requiring that all containers meet the load and dimensional requirements of the Air Force 463 L pallet or shipping 22 foot long by 2" diameter aluminum tubes via common carrier. We can make sure your product is protected during transport to the drop ship location of your choice.

We can duplicate your packaging requirements or propose an alternative. We use our in house engineering staff to help with design along with various packaging "partners" we work with to address special criteria required by our customers.

Submit your packaging requirements and we will be pleased to develop and provide a cost for you.



Crates



HGPTS Crates



Commercial Packaging



# Printing

## Wide Format Solvent Printing

Full color solvent printing offers a long lasting, high resolution, excellent output. Durability is top notch, suitable for outdoor usage, and modern digital printing technology brings with it photo quality results. Quality can be good, better, or premium. With solvent inks, results are water, scratch, fade and tear resistant, and can be sun protected with UV coatings.

- 2-3 year life expectancy
- Printing width 3.2 meter (126")
- 8 printing heads (4 color)
- Maximum output up to 900 sq. ft. per hour.

## Dye Sublimation Printing - Direct to Fabric Transfer

High Definition Printing with dye sublimation, the graphic is initially printed on coated transfer paper as a reverse image of the desired final design. This is then transferred onto a polyester fabric in a heat press operating at a temperature near 375 F. Under this high temperature and pressure, the dye turns into a gas and permeates the fabric, which then solidifies into its fibers. The fabric is now permanently dyed so it can be washed time and time again, without damaging the quality of the image. Some popular fabrics to use with this print method for trade shows, home shows, and office decoration are: heavy knit, mesh for jerseys, power stretch, flag, poplin, sheer, poly knit, poly satin, poly silk, poly linen, and poly georgette.

## Screen Printing

Large and small prints available for custom printing

For more information on printed products, please visit:

[www.catchattention.com](http://www.catchattention.com) • [www.tentprinting.com](http://www.tentprinting.com)

[www.celinasignsbannersbillboards.com](http://www.celinasignsbannersbillboards.com)

The benefits of digital printing include faster turnaround times, lowered production costs, and the ability to personalize documents. Digital vinyl banner printing is frequently used for on-demand or short-run color printing.



HP Solvent Printers



Thermal Transfer 126" Press



Thermal Transfer 64" Press



Thermal Transfer Presses



Dye Sublimation Printers

# Consolidation & Surge Capacity

Celina has the floor space, equipment, manpower and inventory to support consolidation of large shipments. During our peak season 30 to 50 LTL shipments are made on a daily basis from the Coldwater Distribution Center. Celina acts as a stocking location for distributors on the West Coast and we routinely drop ship inventory to meet their customer demands. Celina has experience “kitting” large shipments to military installations.

In the event that a client requires additional product with time constraints Celina can quickly convert to a “Surge Capacity” mode.

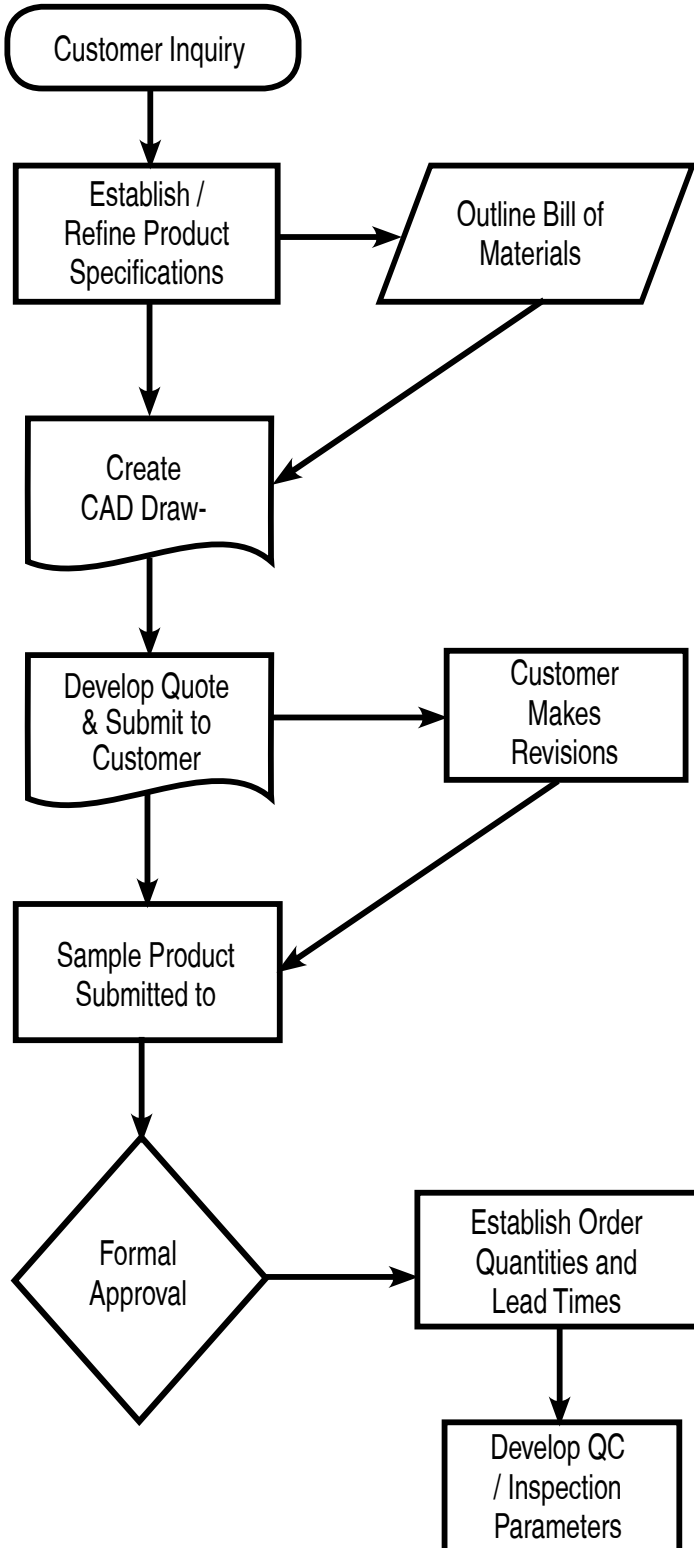
This figure depends on the particular product and product line. We are able to accomplish this by :

- Utilizing equipment that is either dormant or formerly earmarked for other product lines
- Moving personnel from within and outside departments
- Cross training employees to familiarize them with processes and to efficiently operate various types of equipment throughout our plants.
- Developing agreements and strategic alliances with vendor partners and subcontractors to supply products, services and/ or manufacturing space to Celina.
- Utilizing unused space in Celina’s facilities, maximizing manufacturing capacity.
- Modifying existing products that have been manufactured and are in stock to meet customer specifications where applicable.



# Product Development & Engineering

Celina can design and produce prototype products once we have determined that we can manufacture efficiently and can obtain the construction materials. Refer to the diagram below that explains our normal procedure.



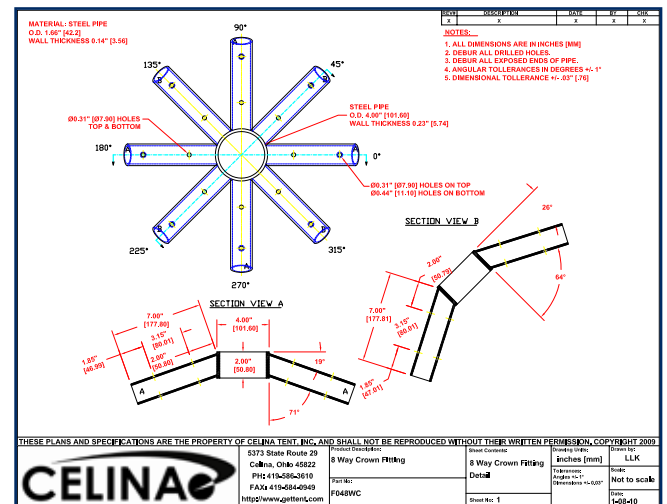
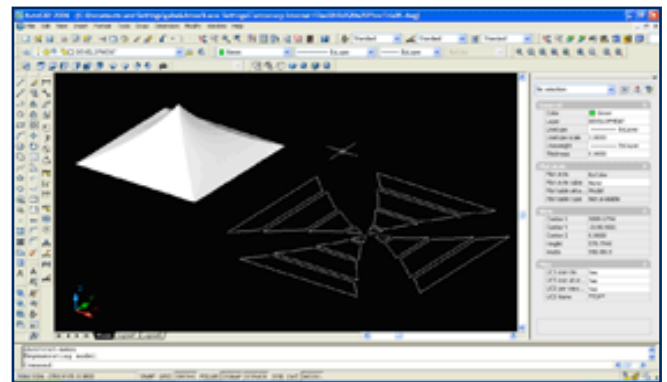
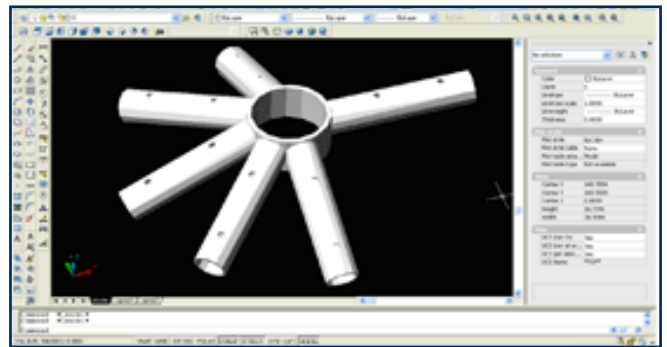
AutoCAD – 2D & 3D Modeling

Mpanel – Form finding and patterning software for tensile structures enables Celina’s engineers to develop a 3D shape and then panel 2D patterns to construct the structure.

In house quality lab gives engineers the ability to do testing during product development

Celina’s engineers work in conjunction with multiple Licensed Professional Engineers on projects that need certified for wind loads and snow loads. We can also perform a finite element analysis during the design process to determine high stress areas.

Have access to and are familiar with various textile specifications like ASTM, NFPA, ANSI, MIL-PRF, and FED-STD.

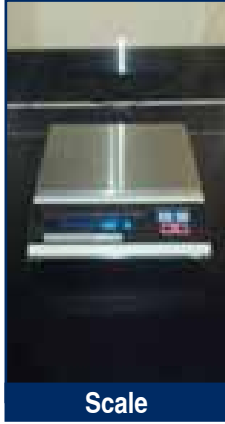


# Quality Assurance

Celina takes great pride in the quality of our work. In effort to set higher standards for ourselves, we have constructed a Quality Assurance Laboratory in our manufacturing facility. Celina can ensure our customers are receiving the highest quality product available through rigorous quality testing.



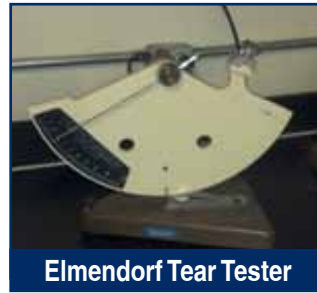
Microscope



Scale



Material Thickness Gauge



Elmendorf Tear Tester



Wind Whip Testing



Tensile Testing



Gravity Convection Oven



Vertical Flammability Chamber



Accelerated Weathering



MacBeth Spectra Light



Wicking Testing



Crocking Testing



Helium Permeability Chamber



Compression Testing



Taber Abraser Double Head Rotary Platform

# Product Examples



Tactical Tents



Agricultural Tarps



Machine Covers



Industrial Curtains



Humanitarian Tents



Turbidity Curtains



Boat Covers



Commercial Tents



Containment Tubes



Building Signs



Large Banners



Specialty Applications



Ventilation Socks



Transportation Bladder

Buy American Act



GSA Contract Holder  
Contract # GS-07F-5874P

*Cut Seal Sew*

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