



## Prime Products, Inc. Company Brochure





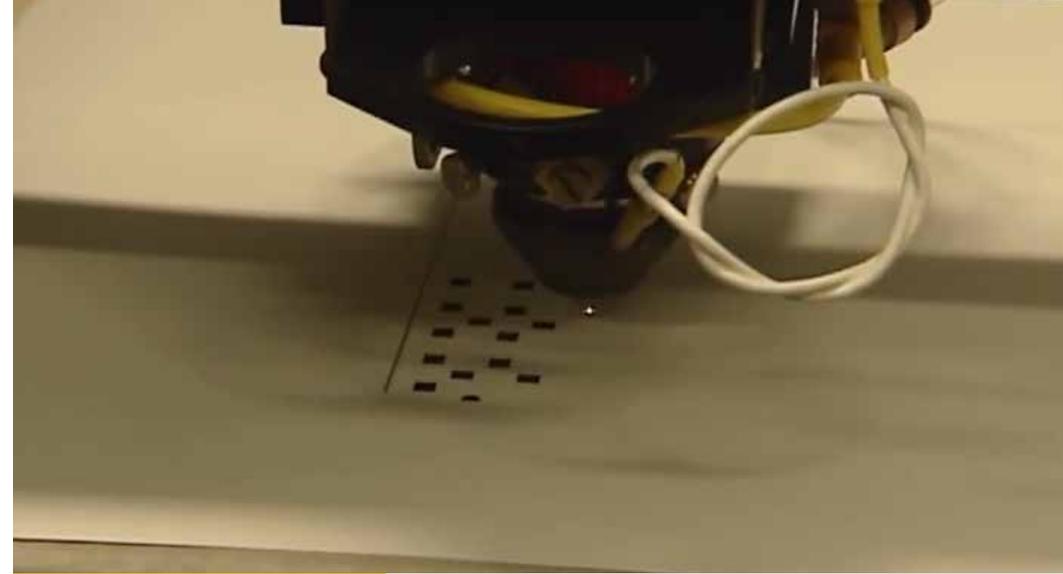
For nearly four decades, Prime Products, Inc. has provided a wide range of contract manufacturing services to many of the top companies in the aerospace and general manufacturing industries. Prime Products' success as a company can be directly attributed to strong company values, high-precision manufacturing, and industry-leading customer service.



# Custom Fabrication of Illuminated Panels and Components

We partner with clients to design and manufacture custom illuminated components such as panels, dials, overlays, light plates, keypads, and more.

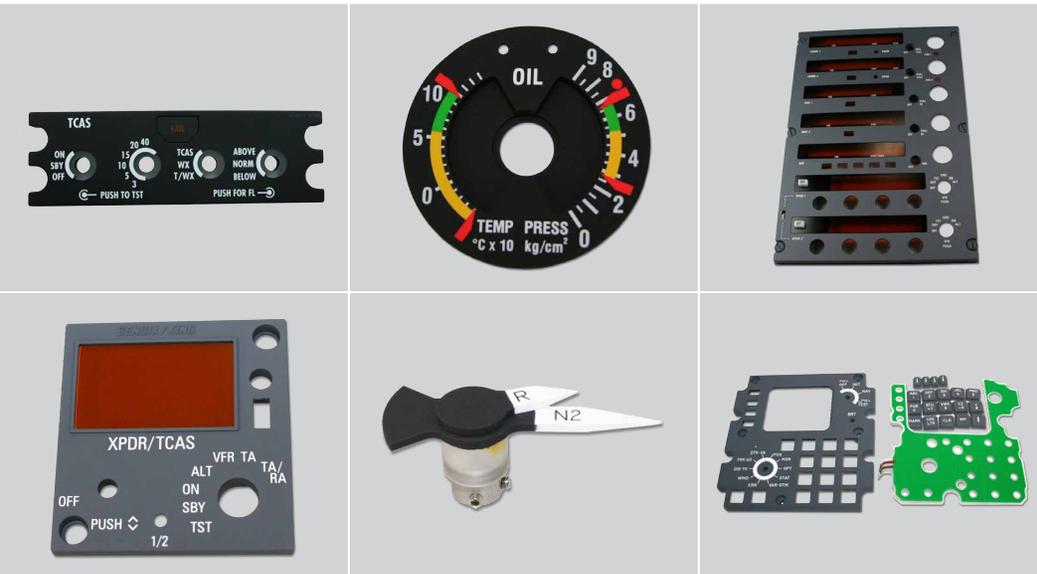
We utilize various materials, including standard acrylic, heat resistant acrylic (MIL-PRF-5425), and polycarbonate: or, we can procure molded plastic or silicone blanks from our network of trusted suppliers. We perform photometer measurements on brightness (foot-lamberts), transmission, contrast ratios, and chromaticity (x, y), and all components are 100% inspected for light leaks in the non-illuminated areas. Our illuminated panels are ideal for applications in the aerospace, medical, and audio equipment industries, and can comply with the toughest industry standards including, MIL-P-7788, AS7788, and AS25050.



## Laser Cutting Services

As a precision manufacturer, our facility is equipped with some of the most advanced laser cutting equipment available.

We operate a 2-axis, 400-watt CO2 laser, configured with flying optics. These features are ideal for the precision cutting of metal (carbon steel, stainless steel, and aluminum) and non-metal materials (acrylic, foam, silicone, wood, polyester, rubber, and more). We are able to cut 1" thick acrylic, .125" thick carbon steel, and .060" thick stainless steel or aluminum. This system allows us to cut work pieces up to 48" x 48"; it also delivers maximum cutting speeds of 2000"/min, rapid positioning up to 3600"/min, and raster engraving to speeds of 3600"/min--all to precision tolerances of  $\pm .001$ " with a repeatability of  $\pm .0002$ ".



## Laser Etching and Marking

Our high-quality laser etching and marking services produce the sharpest, most crisp graphics possible.

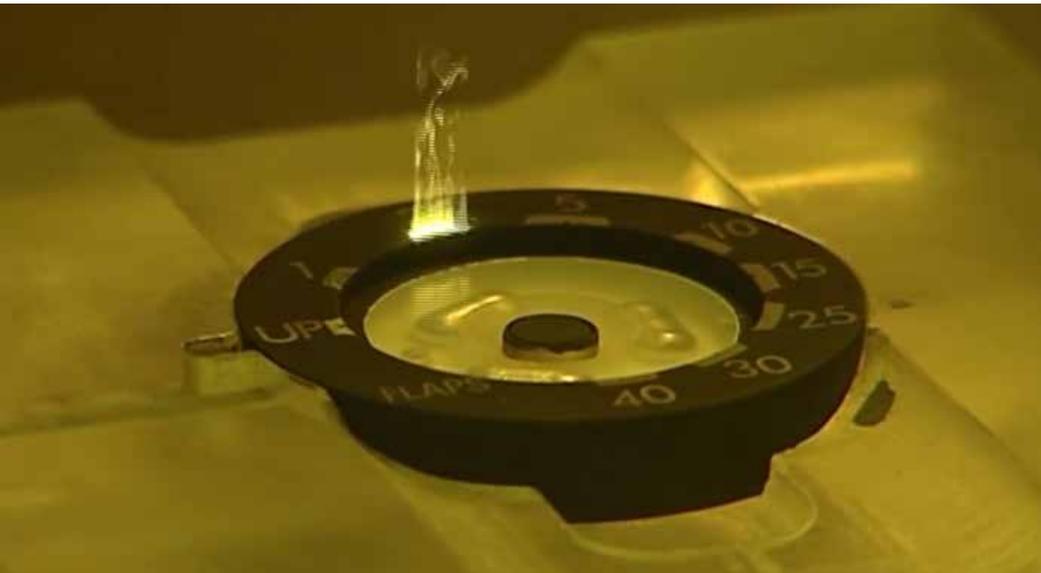
This precision capability is made possible through our solid state Ytterbium fiber (Nd:YAG) lasers. This cutting edge marking system features a 6" diameter marking field and a 25" x 16" workspace that allows for multiple setups. Our high-precision, high-efficiency system allows us to etch and mark carbon steel, stainless steel, and aluminum, as well as non-metal materials such as acrylic, heat resistant acrylic [MIL-PRF-5425], polycarbonate, and silicone. This system is ideally suited to produce the quality marking required for illuminated and non-illuminated graphics, by cleanly removing paint and/or anodized layers without discoloration or pinholes. Our laser etching and marking services are often used for applications in the aerospace, medical, and audio equipment industries. To meet the array of stringent requirements of these industries, we maintain a quality management system that is in full compliance with ISO 9001:2008 and AS 9100 Rev C.



## Screen and Pad Printing

With our screen and pad printing services, our expert staff is here to support your product design. We can help develop CAD artwork and film, and produce screens, clichés, and holding fixtures that match your specifications.

Our closed-cup pad printing equipment is ideally suited for printing images up to 3.5" diameter on curved or textured surfaces. Our screen printing capabilities offer almost endless options for printing on large or small, flat or cylindrical surfaces. Numerous inks are available to suit various applications, including lacquer, enamel, epoxy, polyester, polyurethane, silicone, and vinyl; we can also perform custom color matching. We offer plasma jet (corona) surface pre-treatment to meet the most stringent requirements for ink adhesion. As with all of our services, this is a precision offering, so we design and build our holding fixtures to achieve tolerances of  $\pm .002$ " regardless of design, part geometries, or graphics.

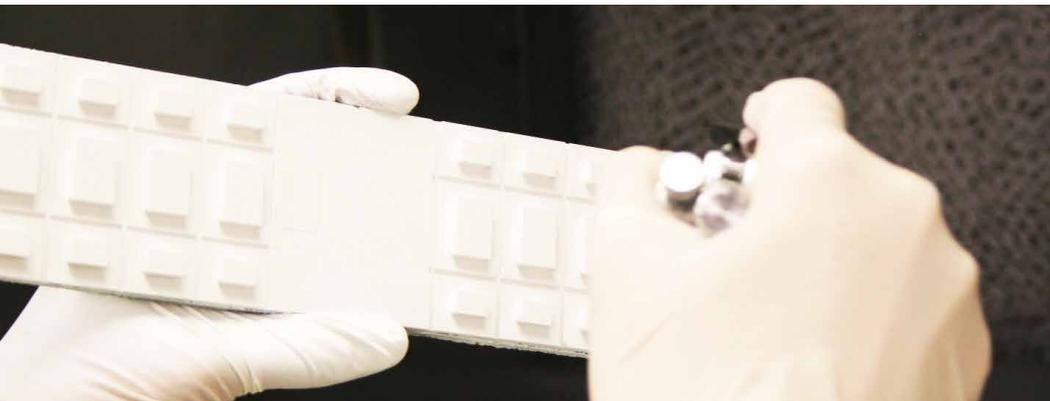


## Spray Painting Services

Our Nadcap certified contract spray painting services offer our clients the ability to confidently outsource their painting requirements.

We work with metal, plastic, and composite substrates and have expertise with various coatings including lacquer, enamel, urethane, soft-feel urethane, polyurethane, epoxy, silicone, barium sulfate, and others. These coatings can be applied smooth or matched to your desired texture. We offer numerous top coat options to protect the paint finish and achieve the desired gloss level. Years of experience have allowed us to develop many techniques to ensure proper adhesion, including ultrasonic cleaning, plasma jet (corona) treating, immersion washing, and other preparation techniques. We utilize fine detail/touch up spray guns, along with custom masking and paint tools designed in-house, to apply paint flawlessly to your parts. Because of the industries we serve, our customers require high levels of quality control and verification. To meet these requirements, we utilize a number of cutting edge systems, such as spectrophotometers, colorimeters, gloss meters, coating thickness testers, and much more.

In addition, Prime Products is Nadcap certified for Chemical processing, ensuring that we are able to meet the most stringent military or aerospace specifications for any project.



## CNC Milling and Turning

Prime Products provides CNC milling and turning services to meet your needs.

Our facility is equipped with a number of cutting edge machining systems, such as vertical machining centers and dual spindle lathes. This equipment offers high speed, high precision, and high efficiency, with features that include CNC and CAM programming capabilities, multi axis machining, a 30 slot tool change, bar feeding up to 2" in diameter, various fixturing options, and much more. These machining systems can accommodate work pieces up to 16" x 26" for turning and 24" x 16" x 14" for milling. Whether the work piece is a nonmetal such as acrylic, polycarbonate, ABS, Delrin, polyester, PTFE, PVC, or metal such as aluminum, stainless steel or brass, our machining capabilities can perform to tolerances of  $\pm 0.0002$ " with a repeatability of  $\pm 0.0001$ ". We utilize automated CMM touch probe/vision along with other quality control measures to ensure we deliver high quality, precision results. Our CNC milling and turning services are ISO 9001:2008 and AS 9100 Rev C certified.

Though the design of your product rests solely in your hands, the Prime Products staff can offer you guidance based our nearly 40 years of experience in the manufacturing industry. With our extensive selection of customized services, we can surely help you cultivate your design into a reliable product.



# Equipment List

## CNC Milling & Turning

CNC Turning Center Haas DS-30  
CNC Turning Center Haas ST-20SSV  
CNC Milling Center Haas OM-2A  
CNC Milling Center Haas Super Minimill  
CNC Milling Center Haas Super Minimill  
CNC Milling Center Haas Super Minimill 2  
CNC Milling Center Haas Super Minimill 2

## General Machining

Belt & Disc Sander Rockford SB-611P  
Cutter Grinder KO Lee B360  
Downdraft Table 3'x5' Waltz Holst  
Horizontal Bandsaw 1 Hp Vectrax-RF-712N  
Indexer Yuasa H/V RAPIDEX  
Lathe Willis 1440  
Speed Lathe Hardinge DV-59  
Tool Grinder Deckel SO  
Vertical Mill Clausing/Kondia FV1-48VS08  
Vertical Mill Clausing/Kondia FV1CNC20M  
Vertical Mill Clausing/Kondia FV60VS0B  
Vertical Mill Digital Readout Acurite 200M

## Laser Cutting

CO2 Laser System MetaBeam 400  
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CO2 Laser System Universal PLS 6.60  
CO2 Laser System Universal PLS6.150D

## Surface Treating

Liquid Hone Cabinet Wet-Tech WT-36RP  
Sand Blast Cabinet Econo-Finish EFR-2636-SRB  
Sand Blast Cabinet Empire ProFormer 3642  
Tumbler/Debur Burr Bench 2016  
Ultrasonic Cleaning Tank Sonicor T-9045HC  
Surface Treater System Dyne-A-Mite HP 3111HP-DXW

## Spray Painting

Spray Room w/ (6) Exhaust Booths 30"  
Spray Room w/ (4) Exhaust Booths 36"  
Spray Room w/ (4) Exhaust Booths 48" and 60"  
Dark Room w/ (4) Exhaust Booths 24"  
Clean Room w/ Exhaust Booth 30"  
Spray Guns (Numerous)  
Paint Shaker 1 gal Red Devil 5410-02  
Vinyl Cutter, 30-inch with stand, Graphtec GFC5100

## Screen & Pad Printing

Cliché Exposure Unit ITW TransTech MBM3850  
Printer 2400DPI 256MB Xante SCREENWRITER  
Printer Xante Accel-a-writer XRA-1  
Silkscreen Exposure Unit Nuarc 40-1KS-1NW  
Pad Printer ITW Trans Tech Aero90  
Pad Printer ITW Trans Tech Aero90  
Screen Printer Mini-Printer MP10.04  
Micrometer Bases

## Laser Etching & Marking

Fiber Laser Marking System CMS-1020-FY  
Fiber Laser Marking System CMS-1020-FY  
Fiber Laser Marking System CMS-5020-F

## Ovens

Batch Oven Gruenberg B45C100 220V 3PH  
Batch Oven Gruenberg B45C100 440V 3PH  
Batch Oven Gruenberg B45C100 440V 3PH  
Batch Oven Gruenberg B45C156 230V 3PH  
Batch Oven Gruenberg B45C156 440V 3PH  
Batch Oven WW Sly VA-500 460V 3PH  
Walk-in Oven Gruenberg MPC45.96-2D 460V 3PH  
Walk-in Oven Gruenberg MPC45.96-2D 460V 3PH  
Walk-in Oven JPW ST496 460V 3PH

## Assembly

Thermal Insert Press Spirol HM  
Cold Laminator 55" Royal Sovereign RSC1401CW

## Software

ECi M1  
Autodesk Inventor Series  
HyperMill Classic CAD/CAM  
Engrave Lab Laser Pro  
Cadlink Engrave Lab  
PCDMIS

## Inspection

CMM Vision System MicroVu 321  
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CMM Vision/Probe System DCC Tesa-Visio 300  
CMM Vision/Probe System Optiv Classic 321 GL TP  
Color Chip Set Fed-Std-595 611 3x5 cards  
Color Viewing Booth MacBeth Judge II  
Electronic Drop Indicator Mitutoyo 543-562  
Gloss Meter BYK micro-gloss 60°  
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Gloss Meter Novo-Curve LABGLOSS 60  
Optical Comparator Mitutoyo PH350  
Optical Comparator Option Package for Mitutoyo PH3  
Surface-Finish Gauge Federal Pocket Surf  
Torque Gauge Mark-10 MGT10Z

## Light Measurement

DC Power Supply BK 1760  
DC Power Supply BK 1761 (3 units)  
Power Supply, 400hz AC, Elgar 121B  
Imaging Photometer and Colorimeter LC1300-202  
Imaging Photometer Westboro Photonics P199F  
Imaging Photometer Westboro Photonics P199F  
Photometer Photo Research PR-1980A  
Photometer Controller Photo Research PCO-3000



## About Prime Products, Inc.

Founded by Jim Herrmann and Ralph Quist in 1975, Prime Products, Inc. is a premier supplier of contract manufacturing services. From humble beginnings as a small shop in Wyoming, MI, the experienced Prime Products team currently utilizes a 20,000 square foot facility with state-of-the-art manufacturing equipment.

Prime Products' clients have come to depend on our unique manufacturing expertise and uncompromising commitment to quality and customer service. We take pride in our extensive use of our customers' online tools for managing order schedules, quotes, quality issues, etc., and in our ability to customize our own business system meet their application needs. Our diverse manufacturing capabilities—which include spray painting, screen and pad printing, laser etching and marking, CO2 laser cutting, and CNC milling and turning—enable us to offer short lead times at competitive prices.

We are proud to be a Nadcap, AS 9100 Rev C, and ISO 9001:2008 certified company. We are proud to be a **AS 9100 Rev C**, and **ISO 9001:2008** certified company with **Nadcap accreditation for Chemical Processing**.

To discover why Prime Products should be your main contract manufacturer of machined, painted, and illuminated components, please [contact a team member](#) or call us at 616-531-8970 today.

