

LaserSharp

# FlexPak

Services, LLC

LaserSharp FlexPak Services LLC located in Vadnais Heights, Minnesota provides laser converting and production for the flexible packaging industry. This food grade facility is AIB and ISO 9001 compliant. Our quality is an integral part of our commitment to bring your laser processed film to the market efficiently and timely. With our 3 shifts of production and 140 pallet storage and racking capacity we ensure timely turn over of roll stock film.

## Services Include:

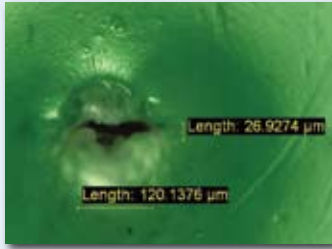
- Confidential Package Development
- Laser Converting & Production
- Microscopic Analysis
- Tensile Testing
- Cross Section Imaging
- Gas and Vapor Transmission
- Assistance with Air Flow Measurement & Calculations
- Pouch Production

## Flexible Packaging Applications:

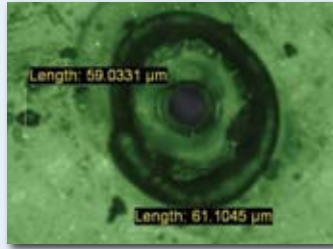
- Microwavable films
- Resealable Pouches
- Retort Food Pouches
- Liquid Pouches
- Fresh Produce
- Pet food
- Ingredient packaging
- MAP Packaging
- Powder Packages
- Medical Packaging
- Security - Identity Theft



### Needle

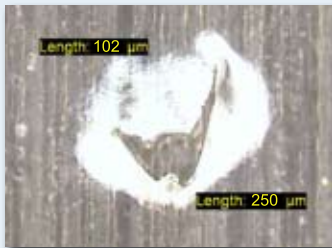


### LaserSharp

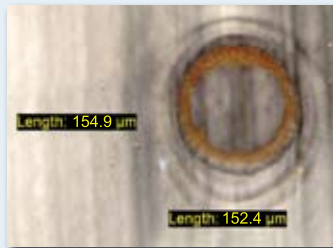


The above pictures are of a PET/LDPE film comparing a needle perforated hole vs. a laser perforated hole, with a 60 micron diameter requirement. The material in the pictures below is a single layer shrinkable film that required a perforated hole of 0.006" in diameter. Both sets of photos show that laser perforated films are more consistent than mechanical/needle perforation in size and shape.

### Needle



### LaserSharp



### Advantages of Laser Processing Over Mechanical:

- Non-Contact Process
- Precise Hole Size
- Consistent Shape
- No Failures
- Precision Depth Control to Maintain Barrier
- Clean Holes - No Residue
- Cauterized Edge
- Smaller features possible
- No Tearing
- Less holes needed for venting
- No Maintenance - No needle replacement
- Easy and Rapid Change Over
- Multiple Processes available in a Single Station
  - Contour lines & Patterned Processing
  - Machine Direction or Cross Web Processing
  - Micro-perforate, Score and Etch

### LaserSharp® Perforating:

- Microwave
- Venting
- Gas Transfer
- Breathable Packaging
- OTR
- Rapid Fill
- Micro-Perf
- Controlled Depth
- Clean & Strong Holes



### LaserSharp® Scoring:

- Easy Open Features
- Microwave
- Steam Release & Venting Features
- Weaken Package



**LaserSharp FlexPak Services LLC**  
**3500 Willow Lake Blvd., Suite 700**  
**Vadnais Heights, MN 55110**  
**Phone: 651-789-8800**  
**Fax: 651-789-8801**  
**web: www.flexpakservices.com**