



Tablet Coating Inspection

Laser Drilling Machines are used by pharmaceuticals to produce precision apertures in the outer coating of tablets that allow for sophisticated drug delivery with the benefits of decreased dosing frequency, more consistent drug concentration, and customized delivery profiles.

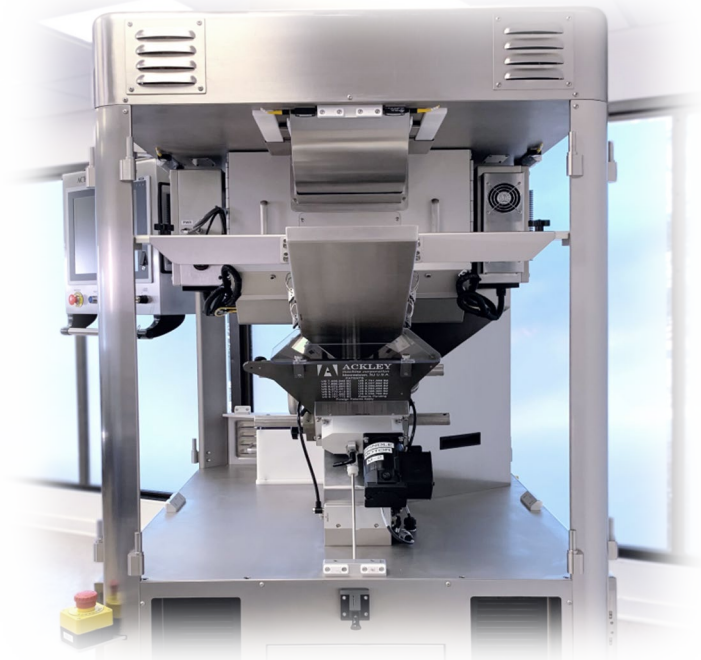
A basic laser drilling process includes lining up tablets on a conveyor, determining which side the tablet is facing, drilling the correct side of the tablet, and removing any rejected tablets for 100% accuracy. This process can drill up to 60,000 tablets per hour.

There are many benefits to laser drilling tablets:

- Decreased dosing frequency
- Consistent drug concentrations in the blood
- Consistency in drug delivery
- Customized drug delivery profiles

The Brimrose AOTF-NIR was introduced to this process to determine the integrity of the tablet coating prior to the drilling process.

The speed and robustness of the AOTF-NIR technology provides added quality control without any reductions to production speed.



*Ackley VIP Laser Drill with
Brimrose AOTF-NIR (side view)*

photo courtesy of Ackley Machine Corporation

A Better Method...

NIR spectroscopy is a non-destructive, rapid test method. The technique has been proven to accurately measure the presence and uniformity of coating on light and dark tablets, and is commonly used by pharmaceutical companies for this purpose.

Brimrose AOTF-NIR has a distinct advantage over other spectroscopy devices due to its very fast scanning speed. Brimrose AOTF-NIR technology has been proven to work up to 60,000 tablets per hour.

- The Luminar 7030 is a rugged spectrometer that can be implemented in-line to rapidly detect for the presence and uniformity of coating on tablets
- Two spectrometers are used in tandem to inspect tablets before drilling.



*Luminar 7030 Mounted to
Laser Drilling Machine*

photo courtesy of Ackley Machine Corporation



*Ackley VIP Laser Drill with
Brimrose AOTF-NIR*

photo courtesy of Ackley Machine Corporation

A Proven Benefit

Successful implementation of a Brimrose AOTF-NIR Spectrometer results in:

- True single tablet analysis
- 100 percent accuracy
- Extremely fast speed 60000 tablets/hour
- Complete confidence in product integrity
- Non-destructive analysis ensures the integrity of each tablet for laser processing and consumption

