

PYROLYSIS/LASER STRIPPING COMPARISON

The cleaning of parts and tools comes at a cost:

- The processing time determines the amount of tooling to be supplied.
- Low quality stripping? can lead to scrapped production.
- The treatment of slag is long and may even involve manual processing.

PYROLYSIS



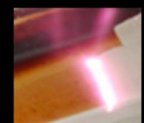
PROS

- Simple (oven and conveyor) and robust process.
- High capacity system, large heating enclosure possible.
- No blind areas.

CONS

- Energy consumption (kW invested for temperature maintenance are lost).
- Some residues resist pyrolysis.
- Premature wear of enclosures and conveyors due to hot/cold cycle.
- Investment cost of tools. (tools suitable for pyrolysis and number of additional tools to ensure production costs).
- The pyrolysis line is rarely integrated into the production line. (Heat, treatment of slag, etc.).
- Cleaning often required for slag removal.

LASER STRIPPING



PROS

- In-line integration (no additional tooling outside the production line).
- Energy saving, selective stripping of the areas to be treated. No energy lost in the enclosure.
- Laser removes all types of residues.
- No additional cleaning operation. Laser transforms deposits to be treated into capturable fumes.
- Fast, localised processing.
- Elimination of additional costs due to the oversizing of parts or tools adapted to pyrolysis cycles.

CONS

- Integration into a regulated enclosure.
- The laser head treats a local area.
- Possible blind areas.



Questions to ask yourself when integrating a pyrolysis solution

- Can the components be calcined by pyrolysis?
- How many cycles will it take to treat components by pyrolysis?
- What type of energy will be used to process parts/tools?

Key economic points laser stripping vs pyrolysis

- Availability rate of over 95%.
- Low maintenance cost, low slag.
- In-line process, no tooling stock awaiting processing.
- Low energy yield.
- Fast intervention on the laser.
- No hot environment within the premises.

