

# Injection Pen Development and Manufacturing

## Early usability assessment for optimal injection pen design

### Challenge

Develop and launch a flexible, variable dose injection pen platform that can be adapted to a wide range of drugs and patient dose regimens.

### Approach

- Design to meet ISO standards for dose accuracy and usability for a wide range of doses and patient populations.
- Robust engineering and tolerance analysis, followed by steel safe tooling changes.
- Manage costs by launching with 2 versions using single cavity tooling and manual assembly, while planning for scale up in parallel.

### Result

- Now available for use and facilitates pharmaceutical companies to study their combination products and bring them to market faster.
- Modular design allows for dose regimen adaptation, rapid clinical study adjustments and private label application with minimal tooling changes.
- Ability to upgrade to connected technology as needed.
- 2020 Red Dot Winner for outstanding design quality.

