Technalysis ®
Services for Pharmaceutical Industry

OVERVIEW

Since 1985, Technalysis, Inc. has been helping pharmaceutical companies developing manufacturing processes of dry and liquid products. Technalysis has developed unique computer software tools and experience which extends to a variety of problems in pharmaceutical industry**.**

SERVICES

❑ By using these software tools, Technalysis can:

- o Model the manufacturing process before the first prototype is build,
- o Design the prototype process,
- o Model the scale-up,
- o Design the full-scale process.

APPLICATIONS

❑ Tablet Making:

- oGranulation- High Speed and Fluidized Bed
- oTablet Filling
- oTablet Forming
- oTablet Coating
- oTablet Solubility

❑ Freeze-drying
❑ Mixing of liquid and dry products
❑ Fermentation
❑ Filling line
❑ Drug delivery devices
❑ Fume control
❑ Temperature Control for Storage Facility

BENEFITS

❑ By using Technalysis simulation tools, one can study the manufacturing process of a compound early on by:

- o Determining the physical properties of the material from a small sample,
- o Modeling and designing a prototype testing tool using simulation,
- o Modeling and designing the scale-up version of the prototype to full scale.

❑ Since these processes require expensive machinery, optimization leads to substantial cost savings during the process design stage,

❑ Technalysis software tools enable optimizing the manufacturing process in a shorter time and at a lower cost as compared to making changes and testing,

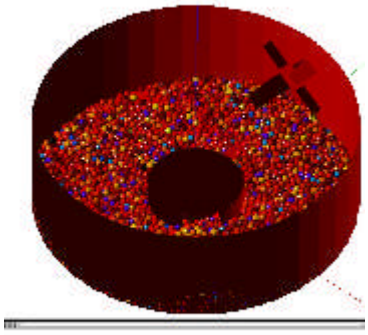
❑Technalysis can evaluate available equipment and aid in optimizing for a specific compound,

❑The analysis results provide valuable insight to the details of the manufacturing process

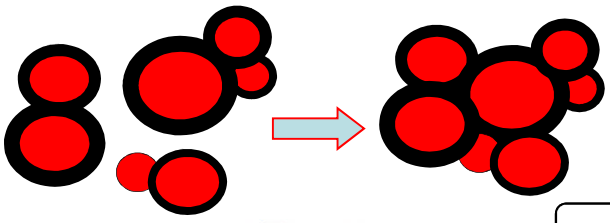
SELECTED CLIENTS

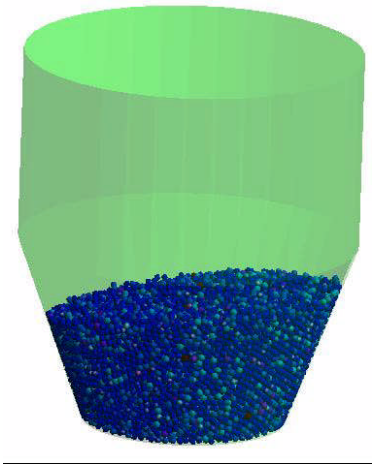
Pfizer
Lilly
MERCK
Abbott Laboratories
ORTHO-McNEIL PHARMACEUTICAL, INC.

SELECTED APPLICATIONS



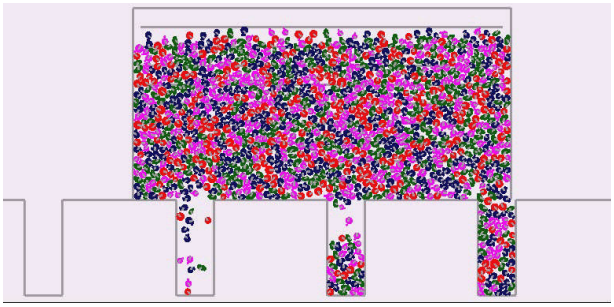
GRANULATION PROCESS

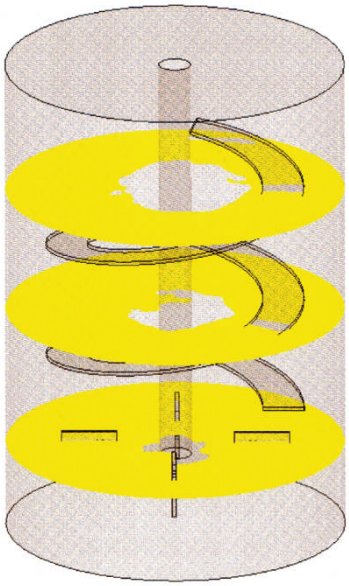


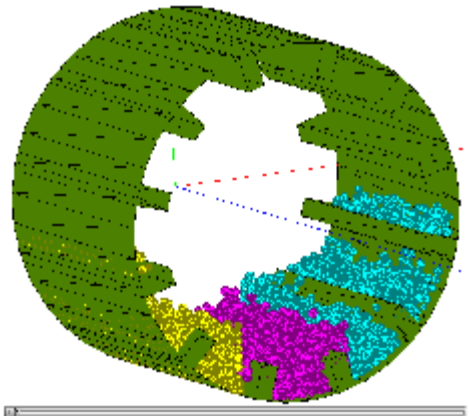


HIGH SHEAR

FLUIDIZED BED

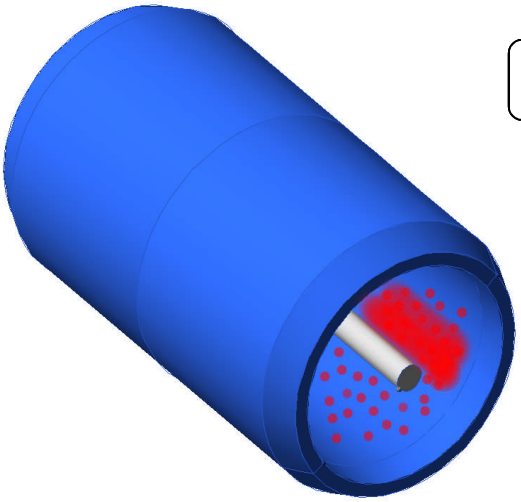


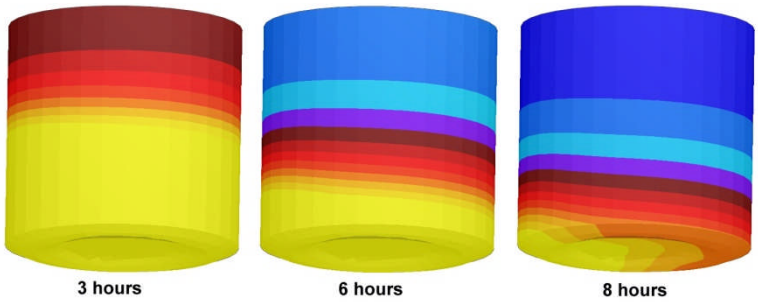




TABLET FILLING

MIXING OF LIQUID AND DRY PRODUCTS





TABLET COATING

FREEZE DRYING PROCESS

Technalysis, Inc., 7172 Waldemar Drive, Indianapolis, IN 46268, ph: (317) 291-1985, fax: (317)291-7281,
email: service@technalysis.com, website: www.technalysis.com