

Introducing the CHR



The Continuous Hybrid Reactor (CHR) is designed to continuously process a wide range of materials by either significantly reducing the moisture content, by transitioning them into dry powder or high viscosity slurry, or liquifying powder or pellets into highly viscous slurries or pastes. The Continuous Hybrid Reactor accomplishes this with twin hollow paddle shafts which co-rotate and circulate heating or cooling medium, and a simple paddle arrangement change. Additionally, the barrel jacket temperature can be controlled separately; this jacket forms a continuous loop surrounding the barrel for maximum heat transfer. This continuous loop is accomplished through construction of the barrel as one piece.

Another design feature of the CHR is its ability to operate under vacuum. The reduction of internal pressure through vacuum optimizes its degassing performance. Other notable features of the CHR are long retention times, some greater than an hour, as well as fully removable shafts without complete disassembly of the machine.

Capabilities include:

- Solvent Removal
- Chemical Reactions
- Polymerization
- Degassing
- Cooling
- Evaporation
 - Increasing viscosity of slurries
 - Transforming slurries to powders
- Liquefaction
- Oxidization
- Reduce or eliminates emissions
- Improve Product quality and safety

Some Applications include:

- Engineering Plastics
 - Epoxy / Urethane / Phenol
- Super Engineering Plastics
- Biodegradable Plastics
- Elastomers
- Sealant
- Adhesives

