

BHR GROUP PROCESS CONSULTING SERVICES

Independent consultants supporting the following industries:

**Bulk and Specialty Chemicals | Paints and Coatings | Cosmetics and Personal Care
Food and Drink | Pharmaceuticals | Petrochemicals | Agrochemicals | Water and Wastewater**



With a proven track record in using in-depth engineering knowledge coupled with expertise in both physical and computational modelling, BHR Group can provide support in the following areas:

Equipment

- Batch and continuous reactors
- Process intensification and application of alternative manufacturing strategies
- Rotor stators and other high intensity mixing equipment
- Pipelines, pumps and valves
- Heat exchangers
- Industry specific specialist processing equipment

Technology

- Single and multi-phase mixing
- Chemical reactions, emulsification, crystallisation
- Powder wetting and dispersion
- Complex fluid characterisation
- Pump selection and pipeline design
- Pressure and fatigue testing
- Insulation and thermal performance

Our key areas for consultancy services:

Process Development

- Support in scale up from lab, to pilot, to full production
- Reactor performance characterisation
- Process performance validation testing
- Interpretation of process performance data
- Transfer processes from batch to continuous operation

Process Optimisation

- Review of existing systems to increase throughput and yield
- Reduce operating costs
- Avoid equipment failures
- Reduce downstream separation costs
- Ensure productivity when using the same plant to produce multiple products
- Prioritisation of improvement opportunities

Process Troubleshooting

- Improve reliability
- Identify failure mechanisms
- Recommend and rate practical process improvement options
- Ensure product quality across multiple manufacturing runs