


Master of Microbial Fermentation

WHAT WE DO

- Microbial Fermentation **Toll Manufacturing**
- **OEM/ODM** Customized Products
- Functional Food **Raw Material**
- **Own Brand Products**





**Microbial
Fermentation
Toll Manufacturing**

**Functional Food
Raw Material**

Own Brand Products

**OEM/ODM
Customized Products**



Microbial Fermentation Toll Manufacturing



- NDA signing



- Strain Transfer
- 50L Pilot-Scale Trial Run
Technical Feasibility Evaluation
- Production Processing
Development & Validation
- Scale-up Production Pricing
- Contract Signing

- Scale-up Production
 - 50,000L Fermentation
 - DSP Production

Core Technology

Strains Screening



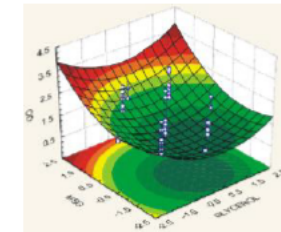
Medium Optimization



Fermentation
Production Technique



Extraction & Purification



Statistics Analysis
Prediction Technique

Functional Food Design

Herbal Material



Production



Strains Screening



Medium Optimization



50L

500L

5,000L

Pre-culture



Product



Quality Control



Concentration



Mass Production

Pilot Plant



Fermentation Facilities

Different scales of fermentor including submerged culture and solid-state fermentors.

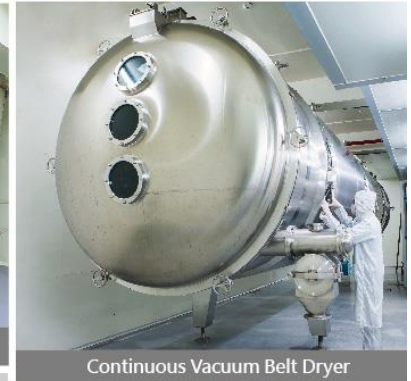


Equipment	Quantity
Fermentor	55,000 L x 2 50,000 L x 2 6,000 L x 2 5,000 L x 3 500 L x 4 50 L x 7
Solid-State Fermentor	1,500 L x 1
Medium Preparation Tank	15,000 L x 1
Substrate Feeding Tank	15,000 L x 1 2,000 L x 1
Feeding Tank	500 L x 2

Extraction, Recovery and Purification Facilities

Complete downstream production facilities for extraction, recovery and purification.

Equipment	Quantity
Auto-Cleaning Membrane Filter Press (Filtration area 100 m ²)	2
Ceramic Membrane Filtration Set (Filtration area 18 m ²)	1
Ultra-filtration Set (spiral membrane) (Filtration area 95 m ²)	3
Continuous Disk Stack Centrifuge	4
Vertical Scraper Peel Discharge Centrifuge	2
Extractor(Stirring Tank Type) / 50,000 L	4
Extractor(Stirring Tank Type) / 10,000 L	1
Continuous Vacuum Evaporator (1,000 L / hr)	1
Vacuum Concentration Stirring Tank / 15,000 L	1
Vacuum Concentration Stirring Tank / 10,000 L	3
Vacuum Concentration Stirring Tank / 6,000 L	1
Vacuum Concentration Stirring Tank / 5,000 L	3
Vacuum Concentration Stirring Tank / 500 L	1



Extraction, Recovery and Purification Facilities

Complete downstream production facilities for extraction, recovery and purification.

Equipment	Quantity
Stirring Cooling Tank 10,000 L	1
Spray Dryer (120 L / hr)	1
Freeze Dryer (450 L / batch)	1
Freeze Dryer (2,000 L / batch)	2
Continuous Vacuum Belt Dryer (evaporation capacity 50 L / hr)	1
Fluid Bed Dryer	1
Solvent Tank / 50,000 L	3
High Pressure Homogenizer (2T / hr)	1
Low Pressure Column Chromatography	2



Freeze Dryer



Crystallizer Tank



Low Pressure Column Chromatography



Low Pressure Column Chromatography



Fluid Bed Dryer



High Pressure Homogenizer



Disk Stack Centrifuge



Disk Stack Centrifuge

Filling & Packing Facilities

We have obtained GMP certified by NSF; also meet the filling and packing standard of TFDA. Providing one-stop service for capsule, powder, and liquid filling and packing.

