

## Facilities and Equipment List      December 2008

### Encap's cGMP manufacturing facilities includes:

- 15,000 square foot total cleanroom area
- Dedicated high containment suite
- High volume manufacturing cleanroom (currently unoccupied)
- 3 further capsule liquid filling rooms
- 1 capsule powder filling room
- 2 blisterpacking rooms
- 1 capsule coating room
- 1 GMP development room

### Encap's high containment suite

- Class 100,000 specification
- Occupational Exposure Limits (OEL)  $<0.1 \mu\text{g m}^3$
- 100% air extraction, 100% air make up HVAC system
- High containment barrier isolator
- 160L mixing vessel
- Liquid filling machine (40,000 capsules / hour)
- Band sealer (70,000 capsules / hour)

### Encap's manufacturing equipment includes:

- 20L sealed and jacketed mixer with paddle and high-shear
- 200L sealed and jacketed mixer with paddle and high-shear
- 300L sealed and jacketed mixer with paddle and high-shear
- 2 x 1500L filling machines (60,000 capsules / hour)
- 1500L filling machine converted to DuoCap process (30,000 capsules / hour)
- 2 x Banding machines (70,000 capsules / hour)
- Powder filling machine
- Isolation cabinet for pilot scale use
- Capsule coater
- Fully automated blisterpacker and cartonner

- Blisterpacker and cartonner for clinical trial volumes

**Encap's intermediate scale manufacturing equipment includes:**

- 1 x Semi-automatic filling and banding machine (1,000 capsules / hour)
- 2 x Semi automatic capsule filling machine
- Semi automatic banding machine

***Encap also has a wide range of bench scale mixing, capsule filling and sealing equipment to handle grams of material up to kg scale.***

**Encap's analytical facilities includes:**

- 4,000 square foot total laboratory area
- 6 HPLC machines, comprising UV, ELSD and RI detection
- 3 Dissolution baths
- 1 Disintegration apparatus
- 1 Karl Fischer Unit
- 1 GC Unit

**Encap's current headcount**

- 10 Production
- 6 Analytical development
- 5 Formulation development
- 9 Quality Control / Quality Assurance
- 14 Other