



**Pharma**



**Powder Filling Solutions**



**All-Fill International Ltd** has harnessed over 35 years of powder filling technology to offer its customers the following benefits:

### The Equipment

- ▼ Fully enclosed filling head mounted on a solid head support plate for strength and rigidity
- ▼ Stainless steel contact parts as standard on all machines
- ▼ Augers designed to a high technical specification and machined from solid stainless steel, giving crevice-free contours
- ▼ Servo drive fitted as standard
- ▼ PLC control via touch-screen HMI panel with memory of all variable parameters
- ▼ Independent agitator drive system permitting 4 modes of agitation for optimum product handling
- ▼ Self-aligning quick-release hopper, auger and funnel, removable without tools in seconds
- ▼ Fill weights from 10mg to 50kg

### The Company

- ▼ ISO9001 accredited and fully compliant with EU standards
- ▼ Ex (ATEX) certified
- ▼ Manufacturing base in the UK
- ▼ Worldwide Agent and Distribution network
- ▼ Turnkey project capability with full after-sales support and service
- ▼ In-house customer test and demonstration facility
- ▼ 3D CAD-equipped in-house design department for bespoke filling solutions for non-standard applications

## Pharma Filling Technology

The pharmaceutical industry demands the highest standards of quality as defined by design, materials, workmanship, GMP, accuracy, usability, security and reliability. Since these same qualities have been the guiding principles since All-Fill was founded in 1969, it is no coincidence that this important sector accounts for an increasingly significant proportion of All-Fill's total production.

All-Fill is able to meet the widest range of customer requirements, from individual machines to complete turnkey lines, from fine fluffy sticky powders through to free flowing granules, all with the option of fully integrated weight control systems. All-Fill support includes a full validation documentation package, with protocols and experienced personnel to assist with installation and operation qualifications.

### Semi-Auto



Series 1 Micro-Fill unit for laboratory and production use. 10mg to 100g. Inclusive of servo drive, colour touch-screen HMI and integral workstation.

Floor-standing pedestal and bench-top models are available in volumetric and gravimetric forms, with all 316L stainless steel contact parts, no-tools strip-down for cleaning and 304 stainless steel externals. All machines feature PLC control via colour touch-screen panel.

Filling heads are supplied direct to end-users and machines building for integration into vertical form-fill-and-seal, sachet and cartonning equipment. They also form the basis of our automatic in-line and high-speed rotary systems.



Integrated unscrambling filling and stoppering system in fully sealed glovebox enclosure for precise gravimetric filling of biological analysis samples into vials and small bottles.

# Automatic In-Line

## Single Head

Supplied as standard with a lift mechanism for neck-entry dust-free filling of fine powders and vibration for settling of granular products. Conveyor bed and system frame GMP designed for ease of cleaning. PLC controlled (Siemens as standard) with large format full colour touch-screen HMI panel.

## Dual Head

Twin head systems are available for doubling output volumetrically. These systems can also be configured with weigh-cells beneath the second head for volumetric bulk fill with gravimetric top-up, or with intermediate weighting for higher outputs.

## Multi Head

Bespoke and multi-head solutions are available, customer-designed to suit user requirements.



Dry suspension antibiotics, 20g to 60g, into narrow-neck glass bottles at up to 30 per minute, with neck location for precise neck-entry lift.



Four head filler for oral suspension antibiotics. The first twin head filling the carrier, the second twin filling the active. Features include servo worm-scroll bottle transport, neck-entry filling, 100% weight validation/reject, vacuum conveyor hopper feeders, and balcony design.

## Double-Shot Systems

Separate dosing of the active product and carrier provide the opportunity to reduce batch validation costs dramatically by scaling down the process plant required to produce the active.

Advances in weigh-balance technology permit double-shot filling with 100% nett weight validation, offering significant capital expenditure and up to 90% batch validation cost savings. Choose from two head, four head or eight head configurations.



# Rotary Systems



18 pocket, twin head Intermittent Dosing Continuous Motion Rotary machine for filling macrolide antibiotics, 15g to 30g, into glass and plastic bottles. Features include:

- ▼ Tare weigh stations to weigh empty bottles
- ▼ Gross weigh stations to weigh filled bottles
- ▼ 100% nett weight validation
- ▼ Reject station with conveyor for out-of-tolerance filled bottles
- ▼ 21CFR Part 11 compliant audit trail for weight validation

Pharmaceutical powders with different characteristics require different engineering solutions. All-Fill have the widest range of high speed, high accuracy rotary macro-dosing equipment available.

## Indexing Motion

For fine, sticky, dusty powders, one to four heads with direct neck-entry filling, with optional tare-and-gross weighing and nett weight calculation for reject.

## Continuous Motion Rotary, Intermittent Dosing

With servo drive to the auger, particularly suitable for high speed filling of smaller doses (1g to 5g) of sticky, non-free flowing powders, dosing intermittently into transfer funnels with transfer assist.

## Continuous Motion Rotary, Continuous Dosing

For highest speed, continuous filling with a knife-edge plate dividing the continuous powder flow equally into the transfer funnels. Particularly suitable for larger doses, 10g to 100g. Seals between the filling nozzle (auger/funnel) and the knife-edge plate keep bottles, machines and environment dust-free.

## 100% Nett Weight Validation

Floor-mounted high-resolution digital balances integrated within the rotary filler base frame, one upstream/one downstream of the filling/transfer turret, provide 100% nett weight validation. Tare and gross weighing statically provides far higher accuracy than could be achieved with traditional dynamic check-weighers. Full integration guarantees mechanical registration, with faster response times, reduced line length and single panel set-up. The exit starwheel reject systems operates in "positive accept" mode, diverting under/overweight bottles to a separate reject lane, with reject verification.





## Validation



All-Fill are able to provide their pharmaceutical clients with a complete documentation package to facilitate pre-production validation, and experienced support to assist with on-site validation.

The documentation package includes full process description, software ladder diagram, installation and maintenance instructions, mechanical and electrical drawings, pre-delivery testing protocols and installation/operation qualification protocols.

## Turn-key Lines

All-Fill International's staff also has the engineering expertise to offer clients a single-source service for all equipment within the packaging line. Machines are selected from specialist manufacturers following detailed discussions with the client to establish a specification. Functions such as container sorting/cleaning, capping and labelling can be incorporated into the filling line together with powder bulk feeding, metal detection and check-weighing systems.

Complete lines are fully assembled at our product facility where Factory Acceptance Tests (FATs) prove performance and compliance with specification. All-Fill take turnkey responsibility for the entire line and from the first discussions, offer a single point of contact for specification development, order placement, project management, installation, commissioning and after-sales support.

## Technical Back-up



Good design, quality components and precision engineering are the hallmarks of a good product. This winning combination gives All-Fill its technical edge, confirmed by a formidable list of "blue chip" customers.

Precision engineering requires a highly trained and skilled workforce. The manufacturing and production plant in Sandy, Bedfordshire boasts a workforce with the complimentary skills and crafts necessary to design and manufacture machinery with a build quality second to none, ISO9001 accredited for design, manufacture and after-sales support.

Our staff, many with a lifetime's expertise in powder filling, are on hand to provide advice, assistance and training – **the complete technical back-up.**

