

Checklist

How to specify a bulk bag unloader

1 Material compatibility

Assess the properties of your material — such as dust containment, flow characteristics and reactivity — to determine the best design and accessories for the unloader.

- Dust containment
- Bulk density
- Flowability
- Sanitary / food grade
- Static / conductivity
- Material conditioning

2 Bulk bag requirements

Plan for both current and future production needs to ensure your bag unloader can manage anticipated production rates.

- Bag size & weight capacity
- Reusable bag
- Spout size & length
- Flat bottom bag, no spout
- Bag dimensions (including overall height)
- Lifting loops (4, 2 or 1)
- Bulk bag liners

3 Batching or dosing

If precise dispensing is required, consider options like load cells or specialised feeding systems.

- Batching accuracy
- Flow control mechanisms
- Batch size requirements
- Automation & controls
- Batching speed vs accuracy
- Existing system integration
- Batch verification
- Minor ingredient dosing

4 Bag handling requirements

Evaluate how bags will be loaded and whether the unloader needs to accommodate various bag sizes or types.

- Dust containment
- Bulk density
- Flowability
- Sanitary / food grade
- Static / conductivity
- Material conditioning

5 Discharge and throughput rates

Identify the speed required for emptying bags and transferring material to meet your production targets.

- Discharge rate requirements
- Hopper and feed mechanisms
- Continuous / intermittent flow
- Surge capacity and buffering

6 Dust control and containment

Depending on the material and bag type, consider dust extraction features such as manifolds, rubber skirts, or spout clamps.

- Seals & connections
- Dust collection systems
- Enclosed discharge area
- Dust-tight bag removal
- Dust containment enclosures
- Negative pressure systems
- Containment during changeover
- Local exhaust ventilation (LEV)

7 Safety features

Prioritise operator safety with ergonomic loading heights, safety interlocks, and other protective design elements.

- Structural safety
- Hoist & lifting safety
- Guarding & access controls
- Emergency stop mechanisms
- Hazardous material safety
- Ergonomics & operator safety
- Safety monitoring
- Noise control
- Manual override systems

8 Compliance

Ensure that the unloader complies with relevant safety, hygiene, and regulatory standards for your industry.

- Safety & occupational health
- Electrical safety
- Dust control & combustible dust
- Lifting & handling
- Environmental
- Food, pharmaceutical & hygienic
- Chemical & corrosion resistance
- Explosion protection
- Risk management & assessment
- Documentation & certification