

# FlexiSieve™

In-line Safety Sieve

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**Pharmatech**  
Innovation in Pharmaceutical Engineering

## Why should I use a safety sieve?

A Safety Sieve is used to screen materials at the start of processing. The screening process will remove any large lumps or foreign bodies.

The Pharmatech *FlexiSieve™* is designed to be installed in-line and will be completely dust free during operation.

The *Flexisieve™* provides a gentle sieving action and avoids product damage.

Why vibrate the whole machine when only the mesh needs to be vibrated?

- ✓ Ensure material Uniformity
- ✓ Ensure Product Quality
- ✓ Help Product Flow
- ✓ Help prevent batch failure
- ✓ Save Money



Interior of the *Flexisieve™*

## The *FlexiSieve™* Concept

The Pharmatech *FlexiSieve™* is a new concept in safety sieving. Other sieves vibrate the whole machine, this makes it very hard to make a simple dust tight connection and also makes the machine noisy.

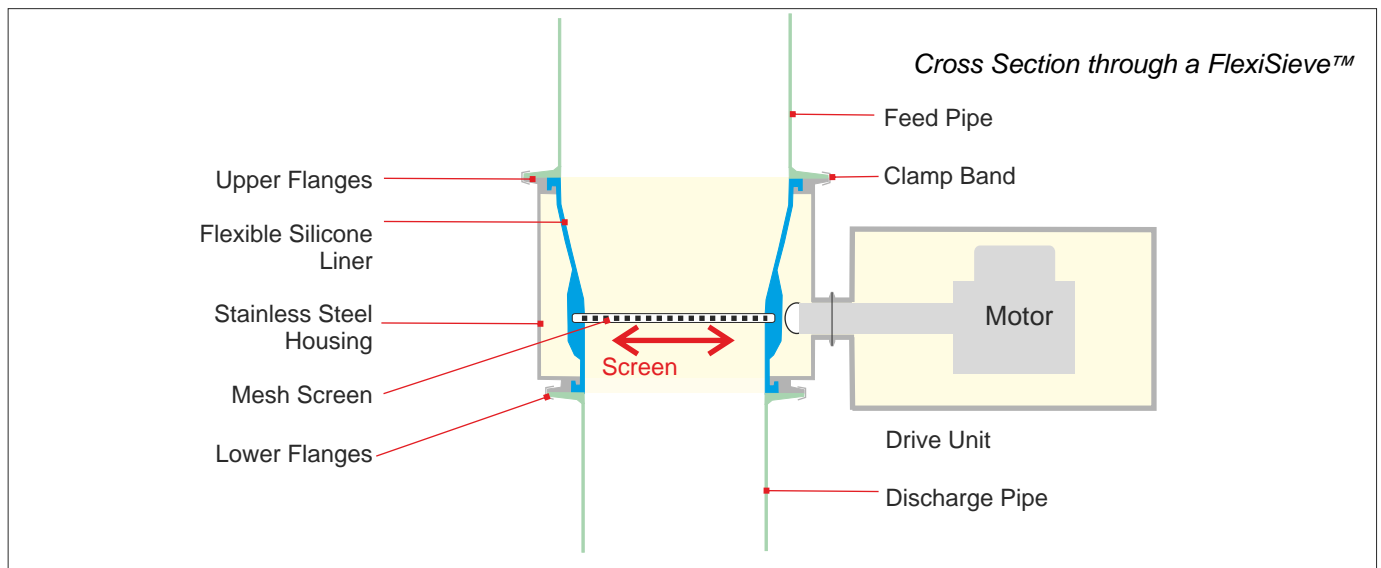
The concept behind the *FlexiSieve™* is to vibrate only the mesh screen. The mesh is housed in a flexible silicone liner and is vibrated horizontally by a motor.

The silicone liner is easy to install and remove. It is clamped between two flanges and secured using a clampband.

The device is designed to be clamped *in-line* and is designed to be *dust-free* during operation. The *FlexiSieve™* only requires a small motor and so is quiet during operation.

The silicone liner and mesh (the product contact parts) are designed to be quickly and easily changed between batches.

Available in 2 sizes - 200mm and 350mm



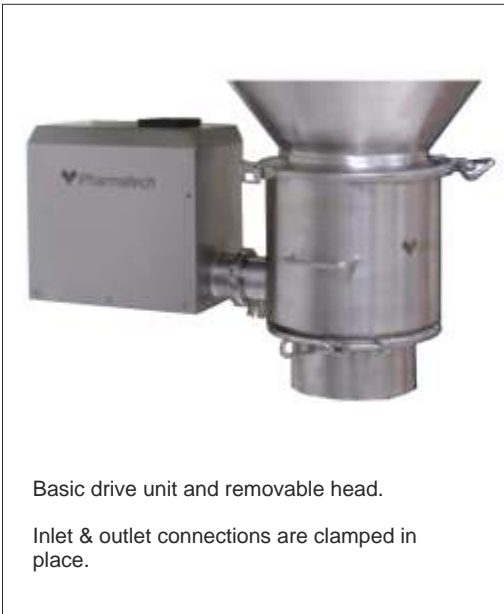
Mounted on mobile hoist for safety sieving from drum into process.



Portable sieve unit supported from Drum Cone valve.



Incorporated into Sack Tipping Station.



Basic drive unit and removable head.

Inlet & outlet connections are clamped in place.

### Flexisieve™ Features

- Rugged all stainless steel construction
- Product contact parts 316 stainless steel and silicone rubber
- Quick changeover between batches
- High throughput
- Low noise
- Low maintenance
- GMP correct design
- CE marked
- Atex Rated versions available
- Drive unit can be orientated at any angle to the sieve unit head

*Dust Free In-line Safety Sieving*

### Designed for easy installation



Drive Unit

Removable Head

The Flexisieve™ allows the sieve head to be quickly disconnected from the drive unit.

### Flexisieve - Designed for easy cleaning

The use of clampbands allows The Flexisieve™ head to be quickly and easily disconnected from the inlet/outlet and drive unit for thorough cleaning.

#### Sieving Safe Handling of Contaminated Items

When handling noxious materials, contaminated parts can be easily bagged and removed for cleaning. The removable head makes this ideal for over-wrapping for safe handling using continuous liner 'bubble' technology.

The entire head can be autocleaned to sterilize it.



Sieving of APIs into process stream.



Mounted on small hoist.



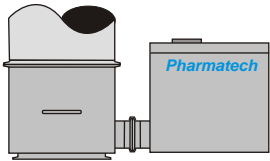
Flexisieve 200 Mobile drive unit for sieving into high containment processing bags.



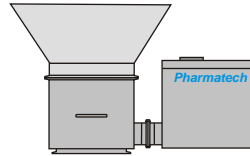
FS350 on mobile chassis for open sieving.

## FlexiSieve Connections

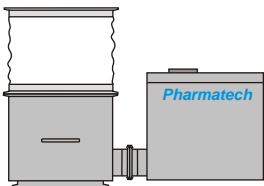
### 1 - Inlet Connections



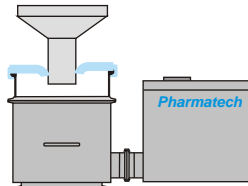
1.1 Flange fitted to downpipe to give a hard, dust tight connection.



1.2 FlexiSieve clamped to machine outlet.

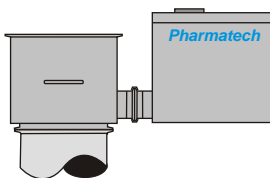


1.3 Flexible connector piece is used.  
Flexible Connections:  
- Isolate Vibrations  
- Compensate misalignments

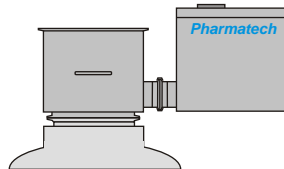


1.4 Dust Cap Seal  
Simple Push Fit  
Dust Tight Connection

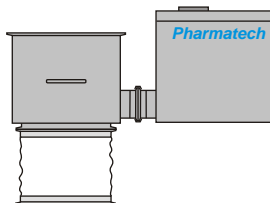
### 2 - Outlet Connections



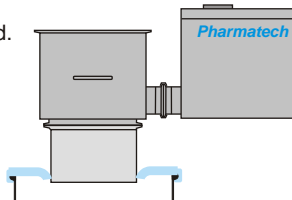
2.1 Flange fitted to downpipe to give a hard, dust tight connection.



2.2 FlexiSieve clamped to inlet of the machine downstream

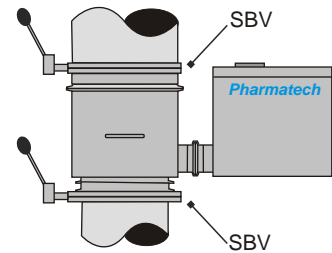


2.3 Flexible connector piece is used.  
Flexible Connections:  
- Isolate Vibrations  
- Compensate misalignments



2.4 Dust Cap Seal  
Simple Push Fit  
Dust Tight Connection

### 3 - High Containment Systems



3.1 High level of isolation using split butterfly valves.



Sieving of APIs into Process Stream.



Flexisieve fitted with Split butterfly valves



Basic FS200 with inlet cone & outlet spigot.

### Some Applications:

#### **Flexisieve 200 Mobile drive unit for sieving into high containment processing bags.**

The sieve is shown set up for the sieving of excipients into high containment processing bags. The top tray allows manual tipping of the material to be sieved for visual inspections before passing through the sieve into the collecting bag.

A high containment valve can be added to the top of the sieve and under the sieve allowing contained transfer and collection. After use the sieve head can be removed from the drive unit and transported to a dedicated wash area.



#### **Sieving of APIs into Process Stream.**

The mobile *Flexisieve* 200 drive unit is located above a feed duct into a fluid bed drier.

Above the *Flexisieve* is a magnetic separator to check for any residual ferrous materials. The delivering drum is fitted with a cone and feeds into the magnetic separator.

A second feed location is provided for non sieved excipients to be added into the same feed line.

Breather filters are provided to allow entrainment of the sieved powder into the feed line .

After use the entire sieve head can be stripped from the drive unit and bagged off for washing in a dedicated area.



#### **Flexisieve 350 for drum to drum sieving operations**

The *Flexisieve* is mounted on a lift lower system. The drum is placed beneath the raised sieve which is then lowered to make a dust tight seal into the top of the drum. Exhaust air is filtered from the receiving drum.

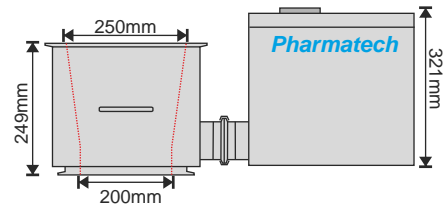
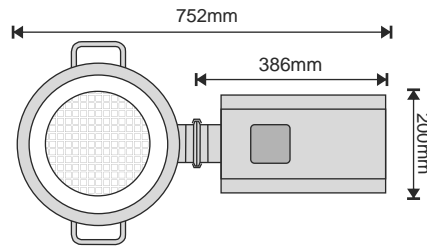
Above the sieve is mounted a magnetic separator. This has a vibrator fitted to ensure bridges do not form. The separator is located on flexible mounts to allow it to vibrate.

The delivering drum is held in position on a hoist (not shown). The cone attached to the drum has a valve and discharge spigot which locates in the dust cap seal on top of the magnetic separator.

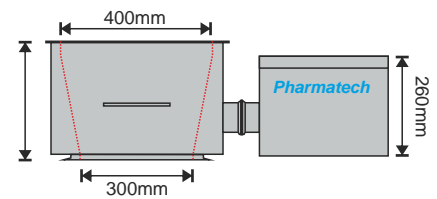
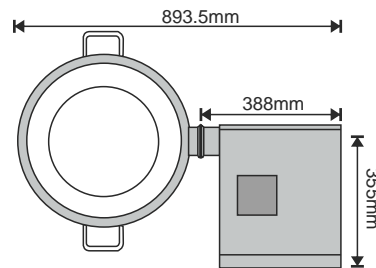


## Technical

FlexiSieve 200



FlexiSieve 350



	FS200	FS350
Weights (kg)		
Head		
Drive Unit		
Total	30	
Power Req.	230v 50hz	
Throughput (SCH)	750kg/hr	2000kg/hr
Variable Speed	Optional	Optional



### Silicone Liner

One piece silicone liner made from FDA compliant, white silicone rubber.

Liner conforms to CFR (FDA) standard 177.2600



### Mesh Screens

Manufactured from 316 stainless steel. Seals have a polymer bond around the edge to seal the mesh.

Standard sizes for safety sieving are 20,30 and 40 mesh. Other meshes are available on request.

## Further Information?

Contact us for further information about the Pharmatech FlexiSieve™.

Pharmatech are suppliers and manufacturers of specialist processing and handling equipment for the pharmaceutical and other hygiene conscious industries.

[www.pharmatech.co.uk](http://www.pharmatech.co.uk)

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