

FlexiSieve™

In-line Safety Sieve



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.

- ✓ Improve product uniformity
- ✓ Improve product quality
- ✓ Improve product flow
- ✓ Help prevent batch failure
- ✓ Save money



Interior of the Flexisieve

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

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.

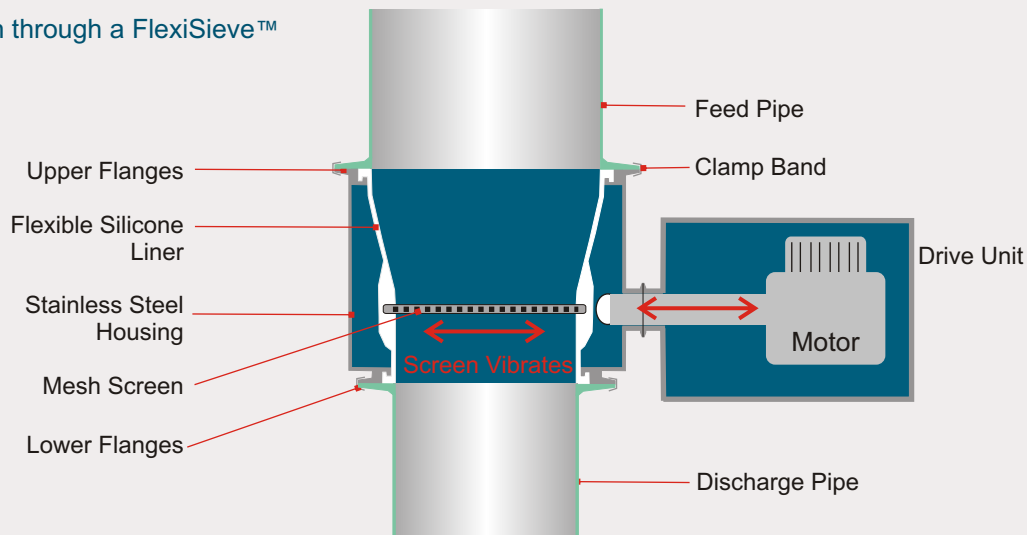
The silicone liner is easy to install and remove. It is clamped between two flanges and secured using a clampband.

The FlexiSieve 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.

The FlexiSieve is available in 2 sizes - 200mm and 350mm

Cross Section through a FlexiSieve™



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



Portable FlexiSieve unit supported from an inverted drum.



FlexiSieve incorporated into Sack Tipping Station.



Basic drive unit with a removable sieve head.
The Inlet & outlet connections are secured with hand operated clamps

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



FlexiSieve Drive Unit

Removable Sieve Head

The sieve head can be quickly disconnected from the drive unit.

FlexiSieve - Designed for easy cleaning

The use of clampbands allows the sieve head to be quickly and easily disconnected at the inlet, outlet and drive unit. It can then be taken away for thorough cleaning.

FlexiSieve is ideal when working with potent products

After sieving noxious materials the contaminated parts can be easily removed for cleaning. The sieve head can be easily bagged once it has been disconnected from the drive unit.

After cleaning the sieve head can be sterilised in an autoclave.



Sieving of APIs directly into the process stream.



FlexiSieve mounted on small hoist.



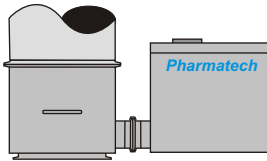
FlexiSieve FS200 Mobile drive unit for sieving into high containment processing bags.



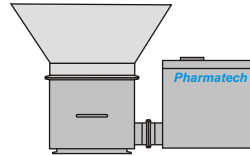
FlexiSieve FS350 on a mobile chassis for open sieving.

FlexiSieve Connections

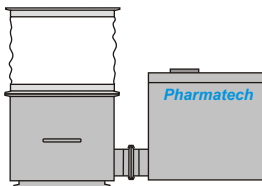
1 - Inlet Connections



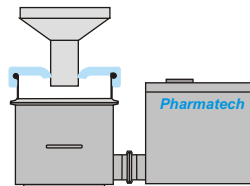
1.1 Flange fitted to downpipe to give a hard, dust tight connection.



1.2 FlexiSieve clamped to machine outlet.

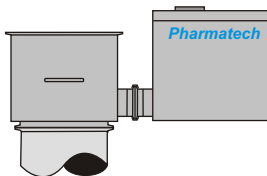


1.3 Flexible connector piece is used.
Flexible Connections:
- Isolate Vibrations
- Compensate misalignments

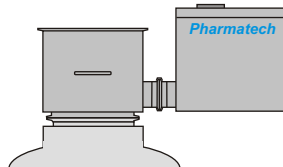


1.4 Dust Cap Seal
Simple Push Fit
Dust Tight Connection

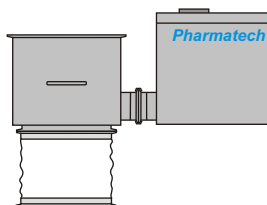
2 - Outlet Connections



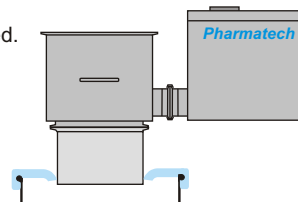
2.1 Flange fitted to downpipe to give a hard, dust tight connection.



2.2 FlexiSieve clamped to inlet of the machine downstream

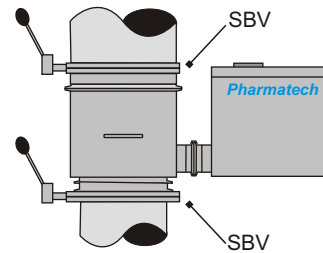


2.3 Flexible connector piece is used.
Flexible Connections:
- Isolate Vibrations
- Compensate misalignments



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 (SBV).



Drum to Drum sieving incorporating a lift/lower system.



Flexisieve fitted with Split Butterfly Valves



Basic FlexiSieve FS200 with inlet cone & outlet spigot.

FlexiSieve Applications:

FlexiSieve FS200 Mobile drive unit for sieving into high containment processing bags.

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

For potent materials a supply vessel fitted with a valve can be added to the top of 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 FS200 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 FS350 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.

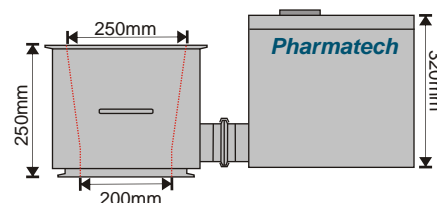
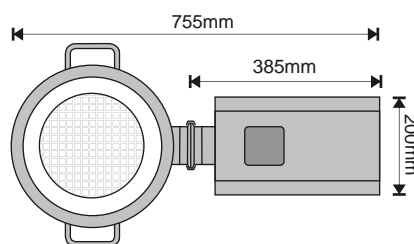
The delivering drum is held in position on a hoist (not shown). The cone attached to the drum has a valve and discharge spigot which locates in the dust cap seal on top of the magnetic separator.



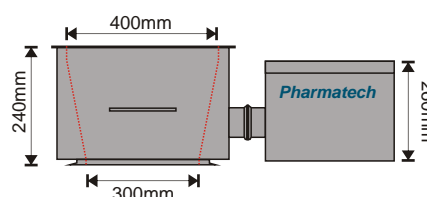
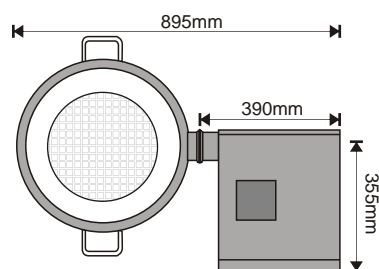


Technical

FlexiSieve FS200



FlexiSieve FS350



Technical Information

	FS200	FS350
Sieve Mesh Dia.	200mm	350mm
Sieve Head Weight	12 kg	28 kg
Drive Unit Weight	18 kg	20 kg
Total Weight	30 kg	38 kg
Power Req.	0.37 KW 1ph	0.55 KW 1ph
Throughput (SCH)	750 kg/hr	2000 kg /hr
Variable Speed	Optional	Optional



Silicone Liner

One piece heavy duty, 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.

06/2001

Flexisieve is Trademark of Terriva Ltd. Flexiduct is a Trademark of Connection Systems Ltd.



Sales

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



Spares & Service



Pharmatech

4 Forge Mills Park, Station Road, Coleshill, Warwickshire. B46 1JH. UK.
Tel: +44 (0)1675 46 76 36 US/Canada Toll Free: 1-855-336-3355
www.pharmatech.co.uk info@pharmatech.co.uk

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