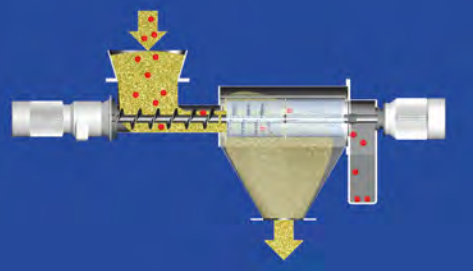
AZO Cyclone screener type DA... Vario Containment
for screening Active Pharmaceutical Ingredients (API)

Operation and maintenance under containment conditions

Proven technology for screener type DA

Wide range of performance by exchanging the dosing module

DIE INNOVATION



Preferred application

The DA ...Vario Containment screener is suitable for use in the bulk materials handling industry where there are very stringent requirements regarding the amount of residual dust released. This means the machine is suitable for screening toxic materials both in the pharmaceuticals field and also in other industrial applications. A risk to machine operators from dust that is harmful to their health can be ruled out, both in normal operation and in the event of a service job.

Special advantages

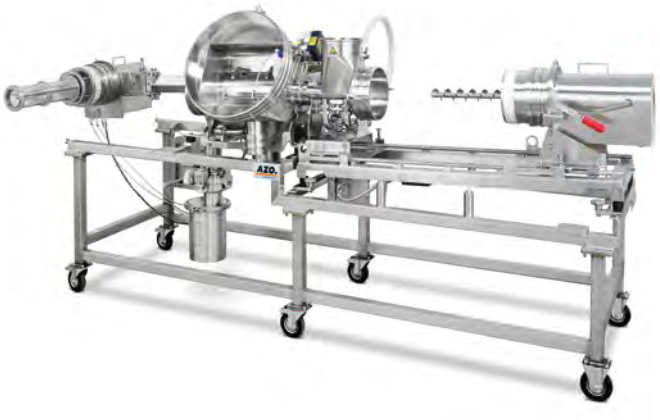
- Replacing the screen basket and dosing screw under containment conditions
- Inspection of the screen basket by opening the inspection hatch under containment conditions
- Outlay for operations wearing full body protection can be reduced
- Easy to exchange the dosing module for different performance ranges
- Technology for cyclone screener type DA proven over years of use
- No additional dosing unit is required thanks to self-dosing, resulting in low overall height
- The drive with rotor and screen basket can be pulled out and pivoted with quick-release fasteners
- The drive with dosing screw can be pulled out using quick-release fasteners
- Suitable for CIP
- Chromium-nickel steel design

How it works

Based on the DA screener, tried and tested for years in actual practice, and on the widespread practice in the pharmaceuticals industry of using flexible containment systems, it is now feasible to open the inspection hatch without any dust escaping. It is possible to inspect the screen in use through the film thanks to the built-in lamp. Once the inspection has been completed, the inspection hatch can be closed again using a gauntlet integrated into the flexible liner. The machine operator has no contact with the high-risk substance in the machine at any time whatsoever. If damage to the screen fabric is found, the screen must be replaced. This procedure is also carried out using liner technology. Once the machine has stopped, the drive unit for the screen rotor is removed from the housing lengthwise. The installed plastic film system is unfolded in this process. It forms a hose-like working space, in which the screen basket and the screener rotor are located. By using appropriate locking and cutting techniques, it is then possible for the machine operator to remove the old screen within the liner and to fit the new screen by using another liner, also within a protected environment. The fitting of the new liner prepares the machine for the next screen replacement.

AZO® SOLIDS

Features of the Vario Containment cyclone screener



The design of this machine is based on the tried and tested type DA cyclone screener with two drives and extraction devices. There are different dosing modules available in addition to the cover for various ranges of performance.

The screener is fitted with film liners. This make it possible to replace both the contaminated screen basket with a cleaned one and also the screw feeder in the dosing module under containment conditions.

Replacing screen basket and dosing screw without risk of contamination

The contaminated screen basket is replaced under containment conditions with a cleaned screen basket using a film liner and the crimp fasteners. The machine operator and the environment remain protected from contamination during the entire procedure.

After the screen basket has been replaced, the contaminated sections of film are drawn inside the new liner into the side pockets. After crimping off the pockets, they can be disposed of together with their contents.

Sealing the film liner to make it air and dust-tight

To seal the film liner at a specific place, the crimp clamp is pulled over the bag by hand and compressed using special crimping tongs. After this the crimp can separated using a cutting tool.

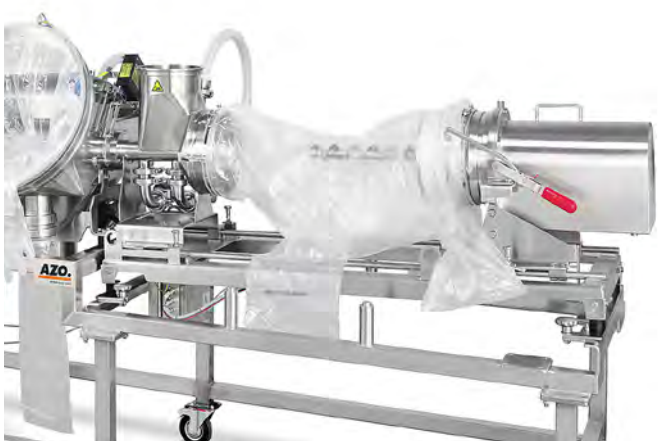
Toolkit with various-sized crimp clamps, crimping tongs, cutting tool and opening tools

Inspecting the screen basket under containment conditions

The inspection hatch can be opened using the gloves attached in the film liner and the screen basket can be inspected by turning it.

After the hatch is closed again, a cleaning gun can be used to bind the dust that clings to the hatch. The cloth used for wiping is disposed of in a side pocket.

Dosing unit as replacement module



The dosing screw can be replaced inside the film liner under containment conditions. To do so, the appropriate tools are first passed into the liner beforehand.

The entire dosing module, consisting of drive, dosing screw, product inlet and extractor slide, can be replaced in order to attain different performance figures. To do so, it is separated from the rest of the screener using a changeover rail.

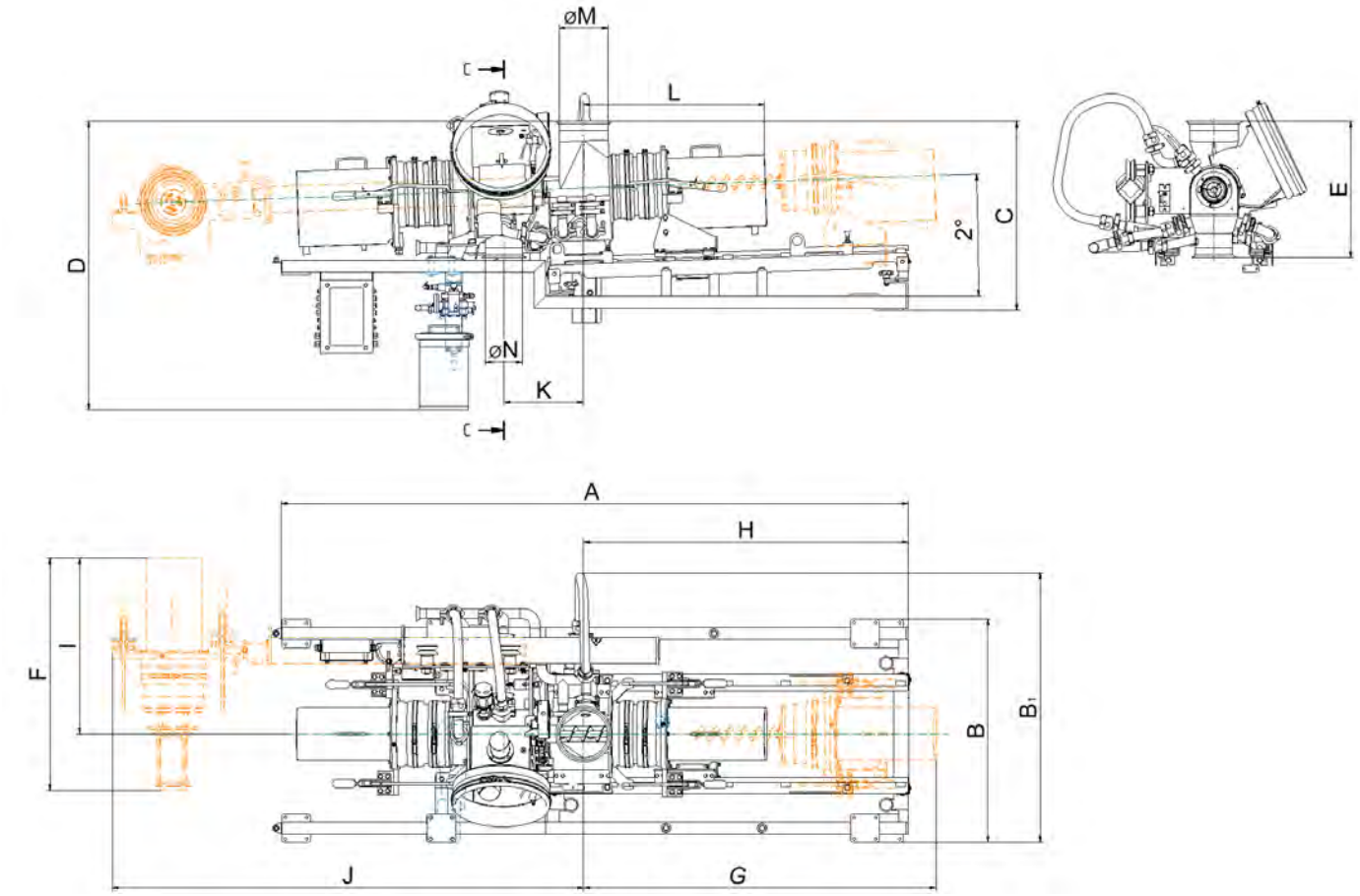
Coarse material container and cleaning pan

The coarse material container is connected to the machine via split-valve technology. The coarse material accumulated in the hopper can then be disposed of under containment conditions or fed back into the production process.

For wet cleaning, the coarse material container is replaced with a cleaning model in just a few steps. This is fitted with a cleaning head and a connection for a drainage line.

3533 1027 GB

Technical data



Dimensions in mm

	DA240	DA360
A	2610	2810
B	930	930
B1	1130	1130
C	790	790
D	1200	1210
E	570	696
F	967	1190
G	1467	1467
H	1350	1350
I	733	733
J	1962	2385
K	332	440
L	750	750
M	200	200
N	150	150

Weight:	
DA240	approx. 500 kg
DA360	approx. 580 kg
Noise level	< 70 dB(A)
Compressed air:	
Air-purged bearing, motor cooling	6 bar
Volume flow of dosing modules:	
Double screw ZD22	3 – 91 [l/h]
Double screw ZD32	12 – 377 [l/h]
Dosing screw DFS70	114 – 1917 [l/h]
Throughput rates are the result of adjustable speed, various gear ratios and variable screw pitches	
Drive:	
Dosing screw	0,37 kW 230/400 V~, frequency controlled
Rotor	0,75 kW 230/400 V~, frequency controlled
Rotor speed	1000 U/min (50 Hz)
Protection class	IP 65
ATEX marking 0588 ⟨Ex⟩ II 1D 135°C 3G IIB T4 (internal) 3D 135°C 3G IIB T4 (external)	

AZO GmbH + Co. KG
D-74706 Osterburken
Tel. +49 (0)6291 92-0
azo-solids@azo.com
www.azo.com