3-D CIRCULAR VIBRATING SCREEN

CULTURE

VISION

LET US DO THINGS BETTER

MISSION

MAXIMIZE COOPERATION MULTI VALUE AND BENEFIT

VALUE

POSITIVE, INTEGRITY,

INNOVATION, RESPONSIBLE

PHILOSOPHY

RESPONSIBILITY ACHIEVE QUALITY

QUALITY CREATS BRAND

TARGET

TO BE INFLUENTIAL ENTERPRICE

CAUTION

Do not start motor before moving shipping brackets. Failure to remove shipping brackets before start-up can cause damage to the unit, motor, and possible personal injury

NOTIFICATION OF DAMAGE

Check packing and machine for damage when machine is delivered. Notify carrier and SOTEC immediately of any damage to machine. A relevant certificate of machine must be supplied.

INSTALLATION OF UNIT

This section details the installation of SOTEC brand 3-D circular vibrating screen.

Remove unit from shipping container/wooden case. Handle carefully to avoid damage to exterior or internal components. Once unit is removed, verify that what you ordered is what you have received. Use packing list to identify contents. Contact SOTEC or a representative if anything is missing. The instruction manual included with unit and any accessories should be kept with the unit.

Place unit on a solid level foundation. Operating the machine while placed on a pallet, or similar, will greatly reduce the screening efficiency. When determining the location of machine, be sure to leave adequate clearance for operation and also for removal of parts, cleaning and shut down motion.

Welcome to be a member of SOTEC Family

Sincerely thanks for your choice of SOTEC brand circular vibrating screen, this model has advantages:

- Ideal for separating solids from liquids
- Effectively segregates dry materials into various particle sizes.
- Simple and efficient design requires fewer kilowatts.
- Other features include long screen life and ease with which screens may be changed.
- Dust covers are also available for any completely sealed process.
- SOTEC screeners are also available in a low profile design.
- Ball tray self cleaning system

DESCRIPTION

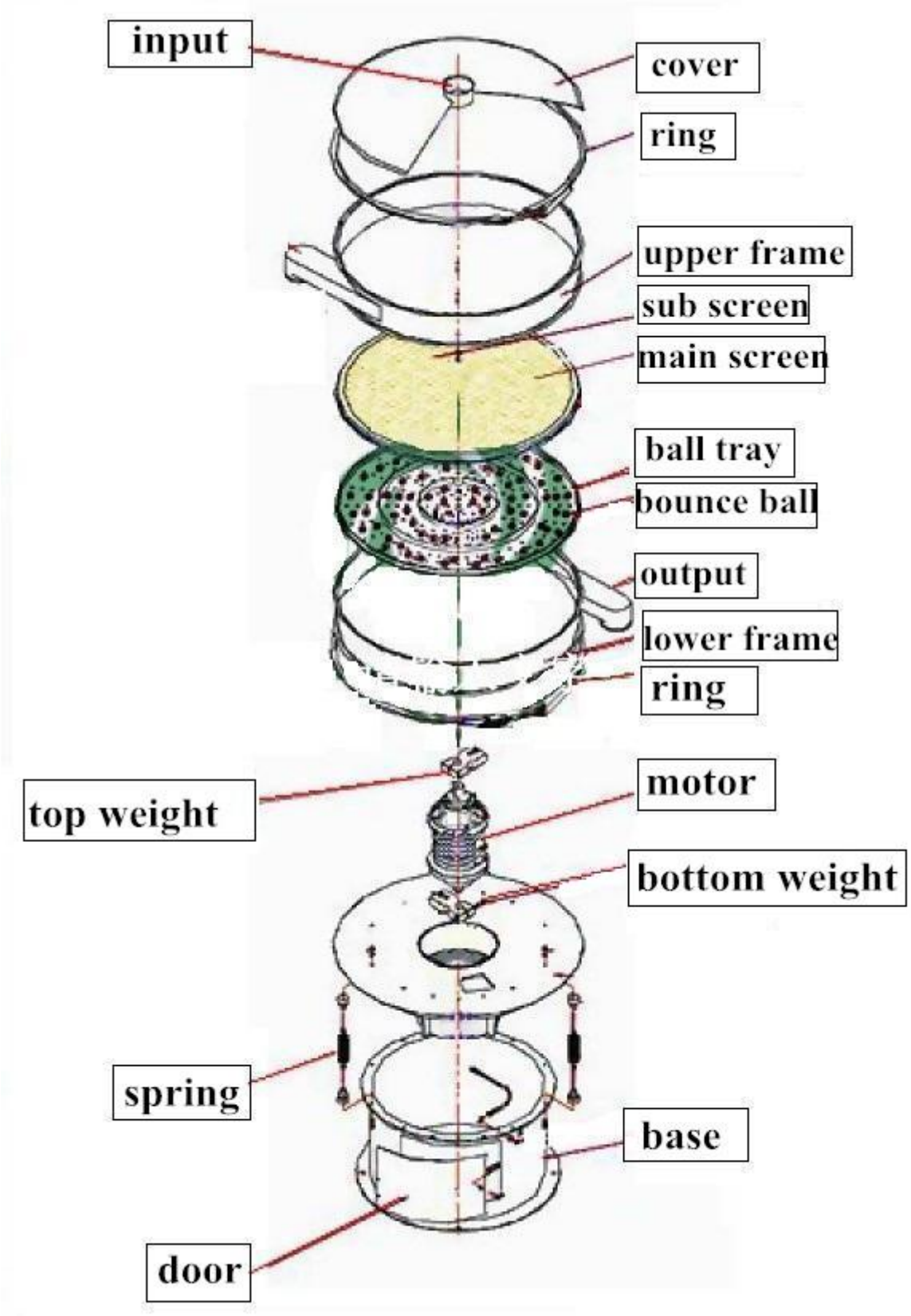
SOTEC brand circular vibrating screen is ideally suitable for the separation of solids from liquids or segregating dry materials into various particle sizes. It is also renowned worldwide for its dependability, durability and quality.

SOTEC brand circular vibrating screen is a vibratory screening device, which vibrates about its center of mass. SOTEC brand circular vibrating screen’s particular vibrating motion is accomplished by eccentric weights on the upper and lower ends of the motion-generator shaft. These weights create vibration in the horizontal and vertical planes. When the movements on these two planes are combined it results in a spiral motion of product over the screening area. The speed and spiral pattern of material trajectory over the screen cloth can be set by the operator for maximum throughput and screening efficiency of any screen able product.

Particles as fine as 300 mesh (50 micron) can be screened using this machine. In addition, up to 4 fractions simultaneous classifications can be obtained by incorporating up to 3 screening decks. Sizes are available in 600, 800, 1000, 1200, 1500mm diameters.

SOTEC brand circular vibrating screen has a very small footprint and does not require special flooring or foundation.

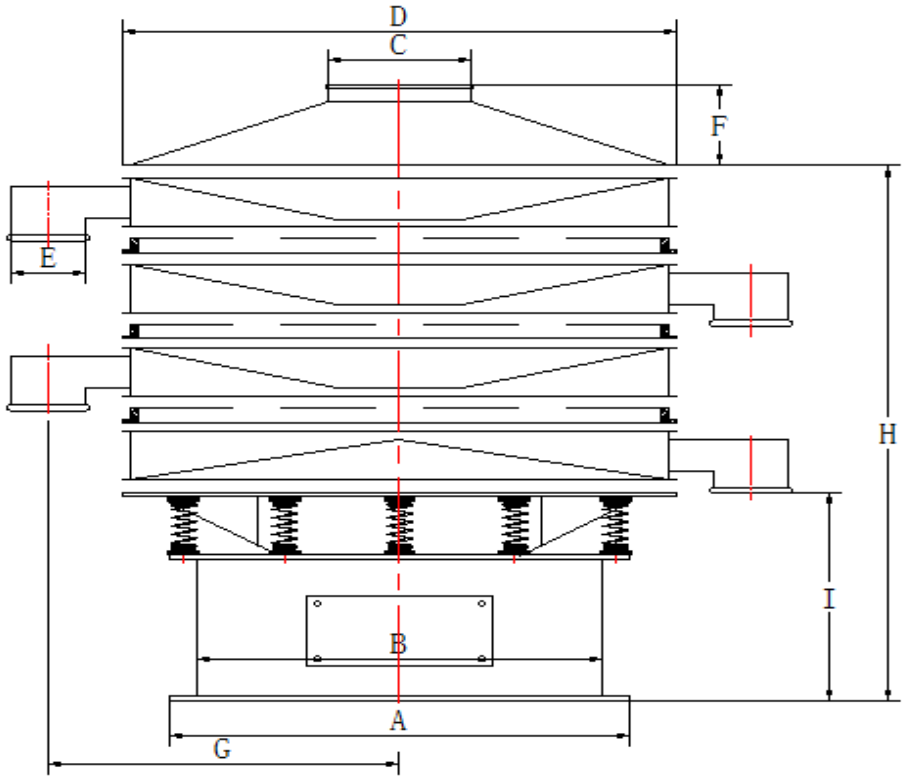
STRUCTURE


input
cover
ring
upper frame
sub screen
main screen
ball tray
bounce ball
output
lower frame
ring
top weight
motor
bottom weight
spring
base
door

SPECIFICATION

Model	Power	Diameter	Efficient Area	Layers of sieve	Dimension
SOT-60	0.55KW	560mm	0.2124 m^2	1 2 3	800×800×750mm 800×800×890mm 800×800×l030mm
SOT-80	0. 75KW	760mm	0.4072 m^2	1 2 3	900×900×750mm 900×900×890mm 900×900×1030mm
SOT-100	1.5KW	930mm	0.6221 m^2	1 2 3	1160×1160×810mm 1160×1160×950mm 1160×1160×1090mm
SOT-120	1. 75KW	1130mm	0.9331 m^2	1 2 3	1360×1360×885 mm 1360×1360×1050mm 1360×1360×1275mm
SOT-1500	2.2KW	1430mm	1.5175 m^2	1 2 3	1850×1850×990mm 1850×1850×1185mm 1850×1850×1380mm

TECHNICAL DATA



Unit: mm

Model	A	B	C	D	E	F	G	H	I
SOT-60-1S	530	430	200	600	120	80	440	670	380
SOT-60-2S	530	430	200	600	120	80	440	810	380
SOT-60-3S	530	430	200	600	120	80	440	950	380
SOT-80-1S	680	580	200	800	120	80	620	670	380
SOT-80-2S	680	580	200	800	120	80	620	810	380
SOT-80-3S	680	580	200	800	120	80	620	950	380
SOT-100-1S	800	700	250	970	150	120	680	730	430
SOT-100-2S	800	700	250	970	150	120	680	880	430
SOT-100-3S	800	700	250	970	150	120	680	1010	430
SOT-120-1S	970	850	250	1170	150	120	780	800	500
SOT-120-2S	970	850	250	1170	150	120	780	940	500
SOT-120-3S	970	850	250	1170	150	120	780	1080	500
SOT-150-1S	1180	1060	250	1470	180	200	970	850	500
SOT-150-2S	1180	1060	250	1470	180	200	970	1010	500
SOT-150-3S	1180	1060	250	1470	180	200	970	1170	500

SETTINGS

- **Step 1** Remove shipping brackets before start-up
- **Step 2** Install 4 supports on the base,
- **Step 3** Choose the suitable sieves and adjust the angel of motor’s weights according to the material and duty
- **Step 4** Inspect whether springs, screws and other spare parts have been tightened
- **Step 5** Plug into the electricity, then check whether the running direction of motor is same as the indication
- **Step 6** Turn off the power for safety.

CAUTIONS

- Make sure the machine was placed horizontally.
- Make sure the power conforms to the requirements.
- Vibrating part do not contact with other objects.
- Make sure all parts have been fixed tightly.

CHANGING A SIEVE

Main screen

- **Step 1** Loosen and remove ‘V’ clamp ring,tools in the case
- **Step 2** Remove the broken screen
- **Step 3** Install the new screen and frame
- **Step 4** Replace and secure the ‘V’ clamp ring

Sub screen (illustration1-1)

- **Step 1** Loosen and remove sieve clamp ring
- **Step 2** Remove the broken sub screen
- **Step 3** Install the new sub screen
- **Step 4** Replace and secure the sieve clamp ring

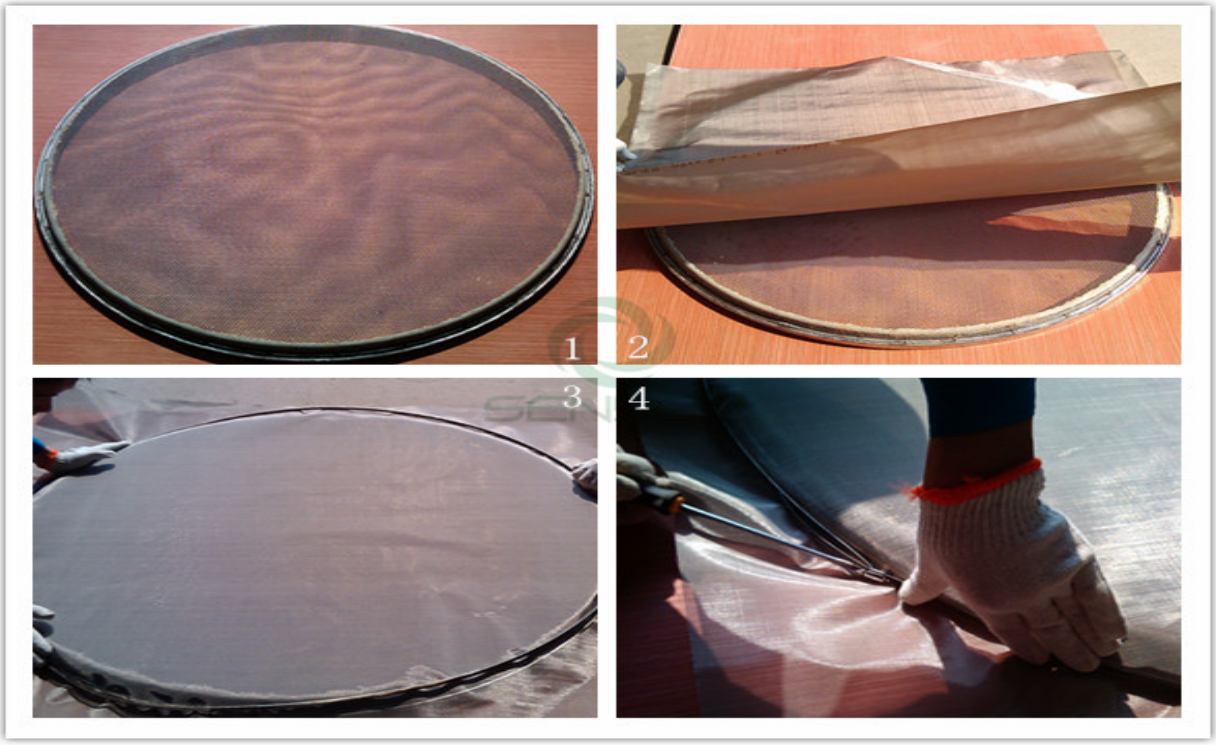


illustration 1-1

SOTEC Standard Sieves Mesh Table

Type	Nomin	Wire	Screen	Mesh/i
5/16#	8.000	2.00	64%	2.54
		1.250	75%	2.75
	7.100	1.120	75%	3.09
0.265#	6.700	1.80	62%	2.29
		1.120	73%	3.25
	6.300	1.120	72%	3.42
3.5#	5.600	1.60	60%	3.53
		1.120	69%	3.78
	5.000	1.000	69%	4.23
4#	4.750	1.000	68%	4.42
	4.500	1.000	67%	4.62
5#	4.000	1.000	64%	5.08
	3.550	0.80	67%	5.84
		0.63	72%	6.08
6#	3.550	0.80	65%	5.83
	3.150	0.800	64%	6.43
7#	2.800	0.710	64%	7.24
	2.500	0.560	67%	8.3
8#	2.360	0.560	65%	8.7
	2.240	0.500	67%	9.27
10#	2.000	0.63	58%	9.66
		0.500	64%	10.2
	1.800	0.560	58%	10.8
12#	1.700	0.45	63%	11.8
		0.400	66%	12.1
	1.600	0.500	58%	12.1
14#	1.400	0.400	60%	14.1
	1.250	0.560	48%	14
16#	1.180	0.400	56%	16.1
	1.120	0.355	58%	17.2
18#	1.000	0.355	54%	18.7
	0.900	0.355	51%	20.2
20#	0.850	0.315	53%	21.8
	0.800	0.315	51%	22.8
25#	0.710	0.280	51%	25.7
	0.630	0.250	51%	28.9
30#	0.600	0.250	50%	29.9
35#	0.500	0.224	48%	35.1
	0.450	0.180	57%	40.3
40#	0.425	0.180	51%	41.9
	0.400	0.160	55%	45.4
45#	0.355	0.160	48%	49.3
		0.140	51%	51.3
	0.315	0.140	48%	55.8

Type	Apertu	Diamet	Screen	mesh/i
50#	0.300	0.140	46%	57.7
		0.112	53%	61.7
	0.280	0.140	44%	60.5
60#	0.250	0.125	44	67.7
	0.224	0.125	41%	72.8
70#	0.212	0.125	40%	75.4
		0.090	49%	84.1
	0.200	0.125	38%	78.2
80#	0.180	0.125	35%	83.3
		0.100	41%	90.7
	0.160	0.112	35%	93.4
		0.090	41%	102
100#	0.150	0.100	36%	102
		0.063	50%	119
	0.140	0.100	34%	106
		0.056	51%	130
120#	0.125	0.090	34%	118
		0.071	41%	130
	0.112	0.080	34%	132
140#	0.106	0.071	36%	144
		0.063	39%	150
	0.100	0.056	41%	163
170#	0.090	0.071	31%	158
		0.063	35%	166
	0.080	0.056	35%	187
		0.045	41%	203
200#	0.075	0.050	36%	203
	0.071	0.056	31%	200
230#	0.063	0.045	34%	235
		0.036	41%	257
	0.056	0.036	34%	265
270#	0.053	0.400	33%	273
		0.032	39%	299
	0.050	0.036	34%	295
		0.030	39%	318
325#	0.045	0.036	31%	314
		0.032	34%	330
	0.040	0.030	32%	363
400#	0.038	0.025	36%	403
	0.036	0.028	31%	397
	0.032	0.025	31%	446
500#	0.028	0.022	31%	508
	0.026	0.025	26%	498
	0.025	0.025	25%	508
600#	0.020	0.020		635

APPLICATION

SOTEC Separator is a great “all rounder” it is most typically used in the following industries:

- Food: sifting powdery materials and removing solids
- Beverage
- Paint
- Recycling & Laundry, removing solids from waste water
- Processing
- Pharmaceutical and Chemical (due to its quality and reliability)
- Plastic
- Minerals & chemical
- Wet or dry … heavy or light … coarse or fine … hot or cold.

TROUBLESHOOTING & MAINTENANCE

Troubles	Inspection	Solution
The abnormal working of motor	1.confirm power	Turn on the switch
	2.Loose contact for the length of cable	Replace the cable
	3.whether disconnection of cable	Replace the cable
	4.Single phase operate to cause damage of the coil	Replace the motor
Abnormal noise	1.The screw of turnbuckle less tight	Fasten it
	2.The turnbuckle be linked incompletely	Fasten cooper screws
	3.The base unbalance	Steady the base
	4.Spring be damaged	Replace spring
	5.The machinery body contact with other hardness thing	Make the gap about 10cm
	6.The screw for fixing the motor loosed	Fasten it
	7.The outlet contact with other thing	Remove it
Trouble with material	1.The running direction of motor is wrong	Adjust the order of wires
	2.The angle of weights is too big	Phase<90
	3.The motor install wrong	Invert it
Damage of sub-screen	1.Material lash directly net	Replace it
	2.Sub-screen loose	Replace it
	3.Main-screen is damaged	Replace it
	4.The rubber ball become thin	Replace it

The cracking of the outlet	**1.The linking-pipe too heavy**	**Separate it**
	2.The turnbuckle fasten unevenly	**Fasten it**
Foot cracking	**1.The loose of foot bolt**	**Fasten it**
	2.Injustice of the mounting surface	**Rework the mounting surface**
Trip usually	**1.Wrong wiring**	**Correct the wire**
	2.Improper protection device data of the motor	**Change the data or change the model**

Daily maintenance	
Before	**1.checking the sieves**
	2.clock tightly every turnbuckle
During	**1.To caution against unusual voice**
	2.To keep electric current stable
	3.To avoid unusual vibration
After	**Please wash completely**
Maintenance in regular	**(a) Check sieves and springs in regular and take notice of the derangement of components because of vibration**
	(b) After the motor worked about two weeks,it is necessary to inject proper lubrication(ZL-3).When the operation time add up to 1500hpurs,please check bearing.And you should replace it in time if the bearing be damaged.