CYLINDRICAL SCREENING MACHINE
CS 300/500/700

GENERAL

Brand	**Saat Technologe**
Designation	Cylindrical screening machine
Model	CS 300/500/700
Use	Seed Industry

Application

Cylindrical screening machines are used for sorting and grading of seeds and cereals such as grain, maize, sunflower seed, rice and similar commodities. Also, generally granular products such as recycling products.

Working mode

The incoming material is sorted according to its width (round perforation) and respectively its thickness (slotted perforation).

All kernels thinner than the screen holes fall through the screen, and all thicker kernels remaining in the screening cylinder are transported to the end-outlet.

By means of the permanent circulation of the product and the resulting centrifugal force, each kernel is forced to be in contact with the screen perforation, enabling sorting operations to be carried out with high accuracy.

The single cylinders built as self-supporting steel constructions can be joined in various configurations by means of the simple modular system, always using only one drive motor (energy saving) with chain drive connection to the single cylinders. A maximum of 3 cylinders can be installed above each other.

This means a huge spectrum of sorting targets can be covered.

Parallel operation

The grain flow is divided to the separate inlet channels of each single cylinder, so they receive part of the grain flow at a time. The oversize product is discharged at the end of each cylinder. The product failing through will direct by the deflector box so as to by-pass the following cylinder.

Series operation

The product falling through the upper screening cylinder is fed to the inlet of the next cylinder by means of a vibrating trough. The oversize product is discharged at the end of each cylinder.

Assembly units:

- Screen box.

The screen box houses the screening cylinder.

- Screen cylinder

The CS300 and CS500 type has a single-sieve push on cylinder.

- The CS700 type has 3 screen segments which are attached on supporting discs.
- Vibrating through

The vibrating through is used to feed the product falling through the upper screening cylinder to the inlet of the next cylinder. When arranged as lowest unit it will collect all throughs and convey them to a discharge pipe.

- Deflector box

The deflector box is used for deflecting the product falling through the upper screening cylinder so that it does not hit the lower cylinder but by-passes the following cylinder.

- Discharge hopper

It is invariably arranged as lowest assembly of the equipment, it is only for collecting the throughs and tailings in troughs from where they are piped out through suitable conduit.

Features

- The drive can be equipped with fixed or variable speed (by frequency inverter or by mechanical speed variator gear).
- Permanent screen cleaning too prevent blockage of the screen-holes, (additional hand operated cleaning device or brush rollers can be installed as an alternative).
- Adjustable screen-inclination for regulation of the throughput-capacity, (steplessly adjustable between 0 and 2,5°).
- Simple screen-exchange

On the types CS300 and CS500, the screening cylinders are precisely inserted via leading-bars and fixed by means of a bayonet lock.
- Screens

Standard perforations or special perforations for very flat products.

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DIAGRAM	TYPE	Capacity [t/h]					Drive [kW]		Aspiration [m³/min]	Dimensions [mm]			Net weight [kg]	Grades
		Wheat	Maize		Soya beans	White rice	Standard	Variable speed gear		Length	Width	Height		
			Round perforation	Slotted perforation										
	ZS 300 I	1,8	0,7	0,9	1,6	1	0,37	0,55	10	2242	565	925	230	
	ZS 500 I	3,75	1,3	1,8	3,3	2	0,75	1,1	10	2527	735	1170	315	2
	ZS 700 I	7,5	2,5	3,5	6,6	4	1,1	1,5	20	3715	1036	1575	824 - br.	
	ZS 300 II-A	3,6	1,4	1,8	3,2	2	0,75	1,1	20	2357	1096	925	460	
	ZS 500 II-A	7,5	2,6	3,6	6,6	4	1,5	2,2	20	2610	1436	1170	790 - br.	2/4
	ZS 700 II-A	15	5	7	13,2	8	2,2	3	40	3755	2036	1575	1600	
	ZS 300 II-BP	3,6	1,4	1,8	3,2	2	0,75	1,1	10	2531	565	1955	460	
	ZS 500 II-BP	7,5	2,6	3,6	6,6	4	1,5	2,2	10	2792	735	2450	744 - br.	2
	ZS 700 II-BP	15	5	7	13,2	8	2,2	3	20	3978	1036	3360	1551	
	ZS 300 II-BS	1,8	0,7	0,9	1,6	1	0,75	1,1	10	2531	565	1715	470	
	ZS 500 II-BS	3,75	1,3	1,8	3,3	2	1,5	2,2	10	2792	735	2210	685	3
	ZS 700 II-BS	7,5	2,5	3,5	6,6	4	2,2	3	20	3978	1036	3035	1551	
	ZS 300 III-P	5,4	2,1	2,7	4,8	3	1,1	1,5	10	2584	565	2770	700	
	ZS 500 III-P	11,25	3,9	5,4	9,9	6	2,2	3	10	2832	735	3515	1114	2
	ZS 700 III-P	22,5	7,5	10,5	19,8	12	3	4	20	3991	1036	4900	2400	
	ZS 300 III-S	1,8	0,7	0,9	1,6	1	1,1	1,5	10	2584	565	2505	700	
	ZS 500 III-S	3,75	1,3	1,8	3,3	2	2,2	3	10	2832	735	3250	956	4
	ZS 700 III-S	7,5	2,5	3,5	6,6	4	3	4	20	3991	1036	4495	2400	
	ZS 300 III-PS	3,6	1,4	1,8	3,2	2	1,1	1,5	10	2584	565	2745	700	
	ZS 500 III-PS	7,5	2,6	3,6	6,6	4	2,2	3	10	2832	735	3490	956	3
	ZS 700 III-PS	15	5	7	13,2	8	3	4	20	3991	1036	4820	2400	
	ZS 300 IV-P	7,2	2,8	3,6	6,4	4	1,5	2,2	20	2584	1096	1955	930	
	ZS 500 IV-P	15	5,2	7,2	13,2	8	3	4	20	2845	1436	2450	1434 - br.	2/4
	ZS 700 IV-P	30	10	14	26,4	16	5,5	7,5	40	4158	2036	3360	3200	
	ZS 300 IV-S	3,6	1,4	1,8	3,2	2	1,5	2,2	20	2584	1096	1715	930	
	ZS 500 IV-S	7,5	2,6	3,6	6,6	4	3	4	20	2845	1436	2210	1275	3/6
	ZS 700 IV-S	15	5	7	13,2	8	5,5	7,5	40	4158	2036	3035	3200	
	ZS 300 VI-P	10,8	4,2	5,4	9,6	6	2,2	3	20	2624	1096	2770	1400	
	ZS 500 VI-P	22,5	7,8	10,8	19,8	12	4	5,5	20	2892	1436	3515	1912	2/4
	ZS 700 VI-P	45	15	15	39,6	45								
	ZS 300 VI-S	3,6	1,4	1,8	3,2	2	2,2	3	20	2624	1096	2505	1400	
	ZS 500 VI-S	7,5	2,6	3,6	6,6	4	4	5,5	20	2892	1436	3250	2036	4/8
	ZS 700 VI-S	15	5	7	13,2	8								
	ZS 300 VI-PS	7,2	2,8	3,6	6,4	4	2,2	3	20	2624	1096	2745	1400	
	ZS 500 VI-PS	15	5,2	7,2	13,2	8	4	5,5	20	2892	1436	3490	1912	3/6
	ZS 700 VI-PS	30	10	14	26,4	16								

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