SCHENCK

WET OR DRY

Schenck Banana Screens have your needs covered

...available in single and double deck configurations

Product drain and rinse screen

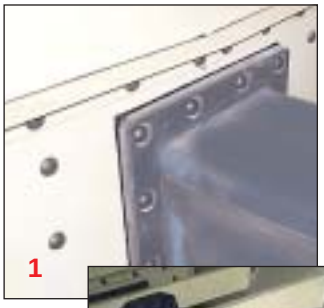
The Schenck Banana Screen for Wet Applications

■ **Built tough for long service life**. Your investment in Schenck is protected by many years of experience in designing and building screens.
No welding is carried out on the side plates thus eliminating associated heat induced stresses, distortion and metallurgical discontinuities.

■ **Corrosion protection is taken very seriously.** There are no internal ledges or crevices below the screen deck—minimising the effect of moisture that causes corrosion resulting in stress cracking or fracture.
The sideplates are extended below the bottom stiffener making the need for bolt on drip angles redundant. This also allows the protective coating on the side plates to be carried around the bottom edge of the side plate and up the outside, providing protection along the bottom edge of the sideplate, where corrosion can cause stress cracking.
Prior to assembly, components are grit blasted and primed with two-pack epoxy primer. Components are assembled with a 'wet sealing' technique that protects the mating surfaces from corrosion.

■ **Attention to detail, especially the effect of stress**. Cross members on our banana screens are stress relieved rectangular hollow sections (RHS) which are sized with a significant safety factor to accommodate unexpected, but normal, overloads.

- The end flanges are attached to the RHS by full penetration welds.
- The longitudinal rails are Huck-bolted to the crossbeam cleats.
- The drive beam is a torsionally rigid fabricated box beam specially designed to accommodate the forces generated by the exciters.
- The beam is stress relieved and machined with particular attention paid to the exciter mounting pads.
- This beam is critical to the performance of the screen, and all welding exceeds the requirements of AS1554 for *special purpose welds*.
- High tensile precision bolts with self-locking nuts are used for connections where replaceable parts are attached to the screen.
- Critical parts that may require adjustment after assembly are also attached with high strength precision bolts and the remainder of the connections are Huckbolted.
- Minimal bolting in wetted areas.s



1 - Sealed cross beam connection; 2- Longitudinal rail cleat connection; 3 - Exciter beam flange stress relieved and machined; 4 - Lay shaft drive assembly.

Banana screen fed by a Schenck diverging pan feeder

Banana screens being assembled in Schenck works

The Schenck Banana Screen for Dry Applications

30 ton double deck screen for a diamond mine

Schenck Banana Screens are robust construction..

- Feature Schenck Directional Force Exciters
- On-line monitoring using Scheck Vibromac systems
- Custom designed to your specification
- Huckbolted construction.
- No welding on sideplate
- Suitable for modular screen decks.
- 96-98% vibration isolation.
- Can be supplied with an isolation frame for better vibration isolation to 99.9%.
- Open end cross beam with replaceable cleats
- Low noise operation.

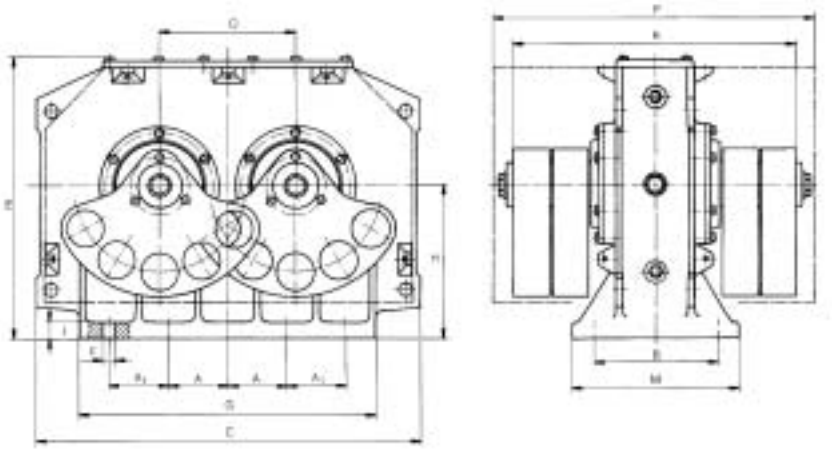
Making sure that our screens work to your specifications.

We design and build our banana screens to meet and,in most cases exceed our clients' requirements. Each screen is fully assembled in our workshop and test run to ensure correct operation.
Dynamic analysis forms a vital part of Schenck's design philosophy. The accuracy of the test procedure and the correct interpretation of the results are vital for the longevity of the screen. Testing is done using equipment and procedures designed by Schenck specifically for screen testing. The dynamic analysis determines the natural frequencies of the screen components and the assembly. Schenck screens are designed for infinite fatigue life, under normal operating conditions as defined in BS7608.
Continuous evaluation of our designs has been proven over a wide range of applications in many industries.

Heavy duty scalping screen for iron ore

Banana screen dust enclosure

Schenck DF Directional Force Exciters



The Direction Force (DF) Exciter is used on linear motion vibrating screens and feeders. Two shafts equipped with eccentric masses (swing segments) are geared to counter-rotate at the same speed thus producing a force in a constant direction, the “Line of Stroke” of the screen or feeder. The magnitude of the force produced can be changed by the addtion or removal of plug weights in the swing segments. The “Static Moment” of an exciter is the measurement of the exciter force capability independent of the operating speed. The exciter “Working Moment” is twice the static moment.

Technical Data		DF100S	DF200S	DF300S	DF401S	DF401V	DF501S	DF501V	DF601S	DF601V
Max. speed in rpm		1000	1000	1000	1000	750	1000	750	1000	750
Working moment in kg cm	min.	416	624	968	1680	2400	2816	2320	4592	7184
	max.	904	1402	2072	3248	4632	5600	7680	9000	15200
Static moment in kg cm	min.	208	312	484	840	1200	1408	1160	2296	3592
	max.	452	701	1036	1624	2316	2800	3840	4500	7600
Maximum exciter force in kN		50	77	114	178	143	307	237	493	467
Motor rating in kW		3	4	5.5	7.5	7.5	15	15	22	30
Weight with unbalances and protective box in kg		265	310	460	520	550	910	1010	1300	1580
Dimensions in mm	A	2x125	1 x75	4x120	4x120	4x120	5x120	5x120	4x120	4x120
	A_1	-	115	-	-	-	-	-	150	150
	B	240	260	260	260	260	300	300	390	390
	C	515	636	690	780	780	830	830	1040	1040
	E	435	437	537	568	568	580	580	660	675
	F	ϕ 31	ϕ 25	ϕ 31	ϕ 25	ϕ 25	ϕ 31	ϕ 31	ϕ 31	ϕ 31
	G	380	435	600	600	600	730	730	910	910
	H	250	250	310	310	310	315	315	370	370
	I	18	18	18	34	34	23	23	25	25
	K	434	494	522	580	708	883	883	934	998
	M	320	320	340	340	340	380	380	470	470
	0	190	230	250	275	275	300	300	376	376
	P	486	550	576	650	780	900	900	1068	1068

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