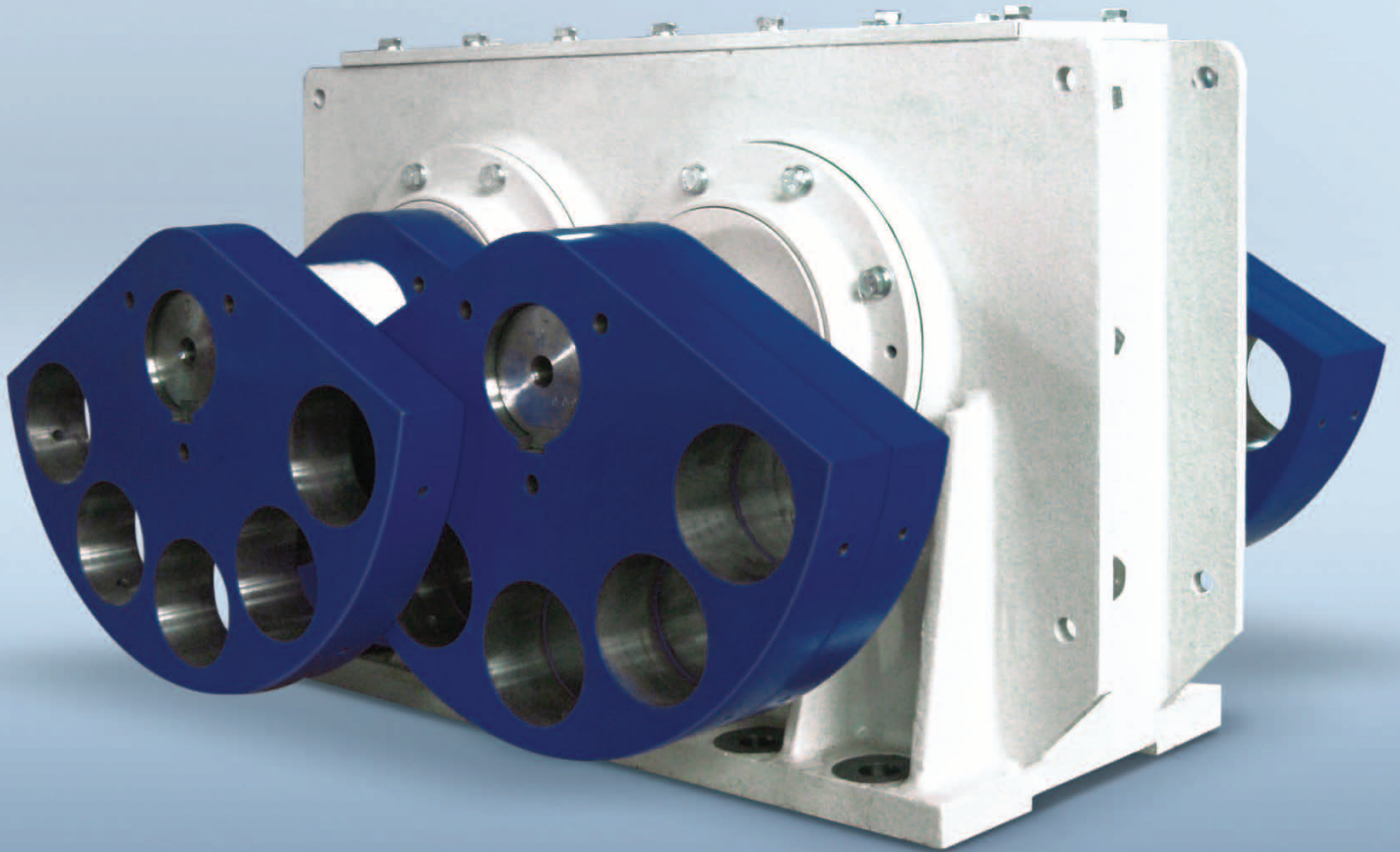


HAVER & BOECKER



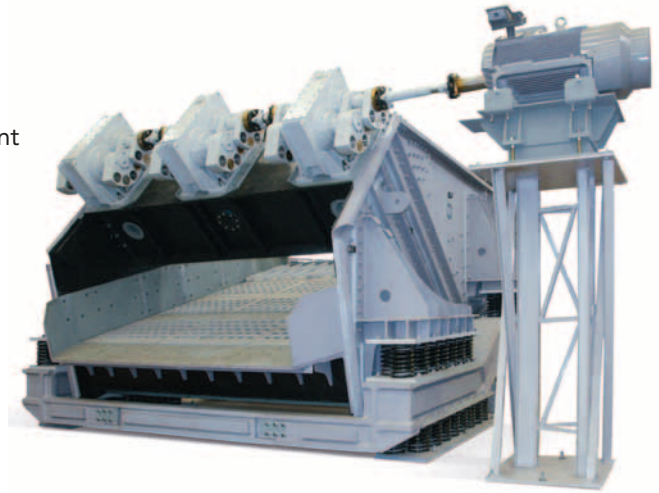
HAVER EXCITERS

HAVER EXCITERS

HAVER exciters combine years of experience in engineering high performance vibrating screens manufactured to properly set the required stroke, frequency and exact static moment for each application, resulting in improved screening performance.

Customer Benefits

- Robust engineering.
- Design that ensures greater bearing life through a specific lubricant and optimized sealing system.
- Minimum maintenance requirements, allowing higher rates of availability and increased production.
- Adjustable static moment through variable inserts configurations enable fine tuning of the amplitude.
- Operational safety is guaranteed through correct sizing of all components.
- Global availability of stock with short delivery times.
- Worldwide assistance through the global Haver & Boecker Service network.



XL CLASS TE 4000 X 11000

CHARACTERISTICS

Bearings and Lubricants

Dedicated spherical roller bearings, particularly designed for vibrating equipment applications, provide increased service life, resulting in greater machine availability and production increase.

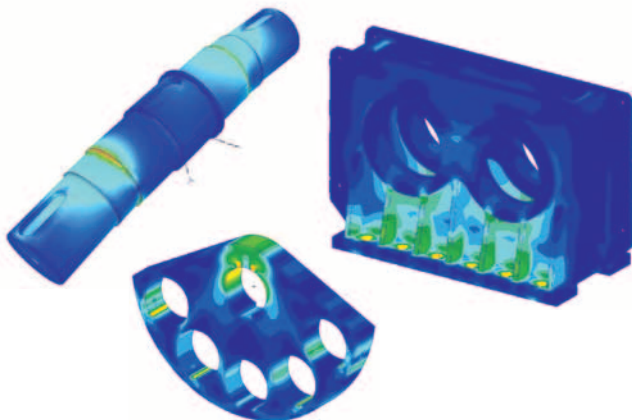
The optimal combination of oil and grease in each exciter model - according to the application - results in lower operating temperature, which prolongs the service life of the bearings.

Labyrinth and Seals

HAVER, in partnership with a premium bearings, seals and lubricants manufacturer, developed a seal system that features an oil deflector and mechanical labyrinth, in combination with specific O-rings and V-rings to resist the vibration. This prevents contamination and oil leakage, ensuring optimal labyrinth performance.

Method and Analysis Tools

The exciter components, such as shafts, housing and counterweights, were designed using analytical calculation and finite element analysis with MSC FEA software based on the AGMA, ISO, DIN and BS standards. Through these calculations and simulations, components were accurately measured to assure equipment reliability.

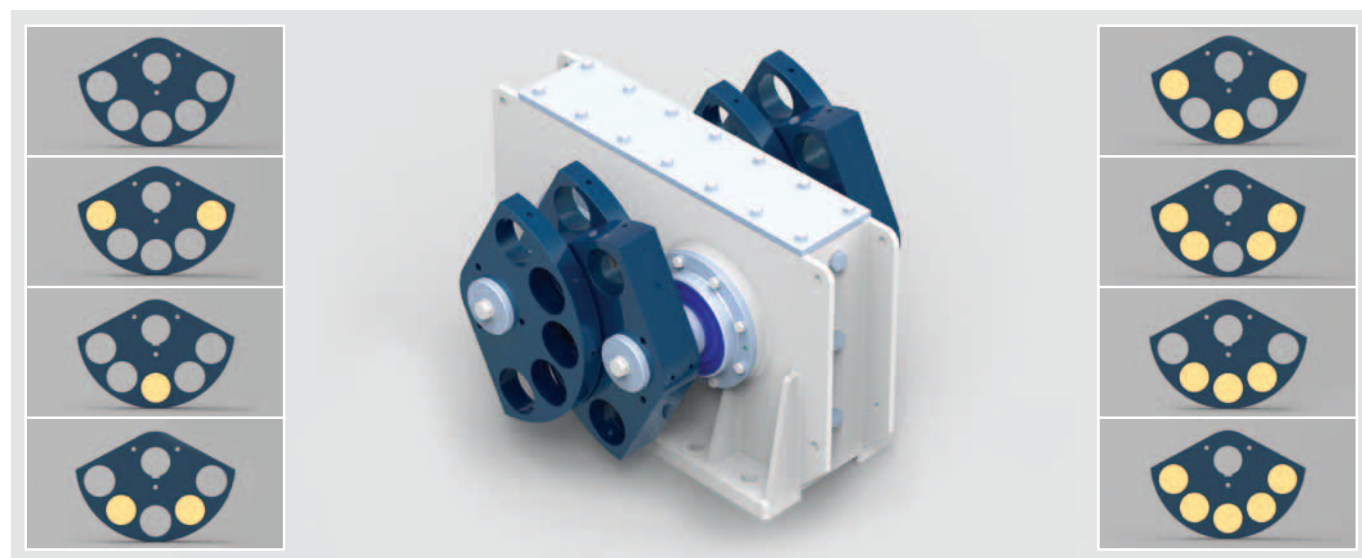


Finite Element Analysis of the shaft, housing and counterweight.

MODELS



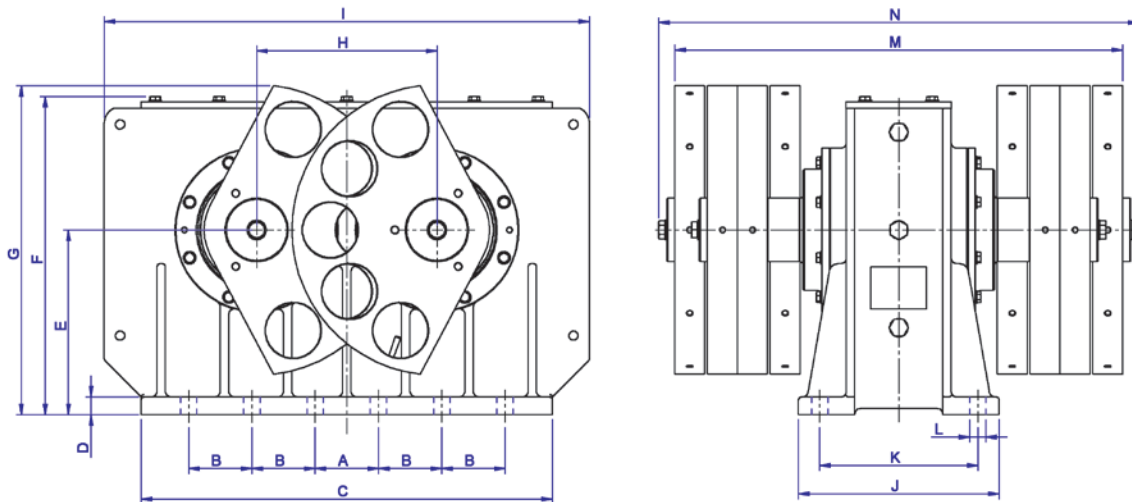
HAVER Exciter models with maximum and minimum static moment of each model.



Possible mounting configurations of the weight (steel or lead) for the static moment change.

STATIC MOMENT										Required motor power (kW)		
Models	Config. Insert									1 Exciter	2 Exciters	3 Exciters
HB 25	Steel	10.719	12.593	13.601	15.411	15.481	17.291	18.300	20.173	11	22	37
	Lead	10.719	13.431	14.886	17.503	17.603	20.221	21.677	24.392			
	Frequency	1500	1300	1300	1200	1200	1100	1100	1000			
HB 55	Steel	25.519	29.731	31.674	35.604	35.884	39.809	41.759	45.969	22	37	55
	Lead	25.519	31.608	34.423	40.102	40.504	46.188	48.994	55.087			
	Frequency	1.200	1.050	1.050	950	950	900	850	750			
HB 85	Steel	36.253	42.918	46.496	52.933	53.172	59.612	63.186	69.857	30	55	90
	Lead	36.253	45.881	51.062	60.369	60.721	70.026	75.196	84.843			
	Frequency	1050	1050	1000	900	900	850	850	750			
HB 115	Steel	45.894	55.177	60.909	70.195	70.196	79.479	85.219	94.504	45	90	150
	Lead	45.894	59.317	67.611	81.028	81.025	94.452	102.740	116.170			
	Frequency	1.150	1.000	950	900	900	850	800	750			

TECHNICAL DATA



HAVER Exciters		HB 25	HB 55	HB 85	HB 115
Mass (without inserts)	kg	569	903	1419	1991
Bearing	[-]	22.319	22322	22328	22332
A	mm	280	120	200	150
B	mm	130	120	130	150
C	mm	700	780	920	940
D	mm	34	34	40	45
E	mm	310	350	380	470
F	mm	549	603	688	794
G	mm	538	623	675	781
H	mm	288	342	378	402
I	mm	840	920	1060	1100
J	mm	332	380	470	630
K	mm	252	300	360	550
(N° HOLES) / ØL	mm	(8) Ø31	(12) Ø31	(12) Ø31	(12) Ø34
M	mm	680	850	1020	1179
N	mm	741	911	1088	1246

HAVER & BOECKER CANADA

Phone: +1 905 688-2644
Toll Free: +1 800-325-5993
info@havercanada.com
www.havercanada.com

HAVER & BOECKER AUSTRALIA

Phone: +61 8 6240-6900
info@haveraustralia.com.au
www.haveraustralia.com.au

HAVER & BOECKER LATINOAMERICANA

Phone: +55 19 3879-9100
haverhbl@haverbrasil.com.br
www.haverbrasil.com.br

HAVER & BOECKER USA

Phone: +1 770 760-1130
info@haverusa.com
www.haverusa.com

HAVER & BOECKER SOUTHERN AFRICA

Phone: +27 (0) 11 794 3841
info@haversouthernafrica.co.za
www.haversouthernafrica.co.za

HAVER & BOECKER NIAGARA

Phone: +49 251 9793 0
info@haverboecker.com
www.haverniagara.com