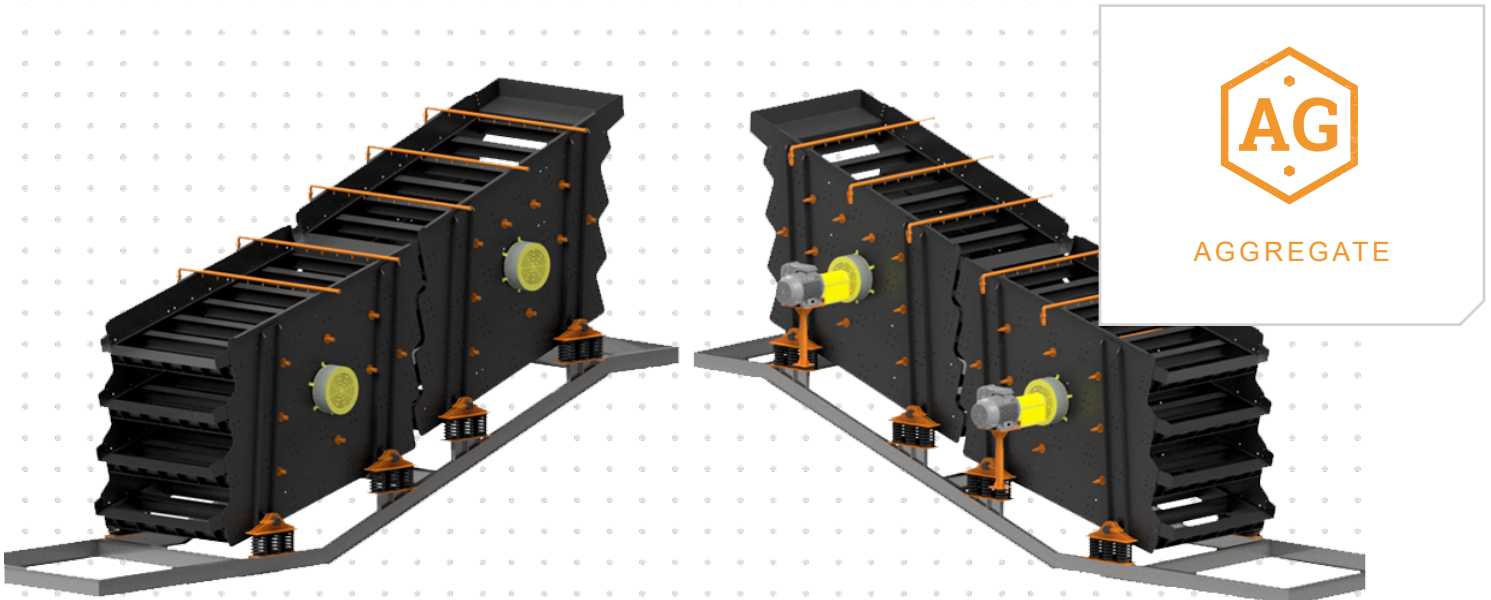




ATHOX

# MODULAR VIBRATING SCREENS



## OVERVIEW

The use of Modular Multislope screens often average, 25-30% better yield capacities compared to constant slope screens in the same size. Modular multi-slope screens can be manufactured in widths 4', 5', 6', 7', 8' and 10', with lengths ranging from 6' to 36' as well as 1, 2, 3 or 4 decks. Modules will be adjusted per application (With 1, 2 or 3 modules). In modular screens there is better use of the sieving area, since in each section there is a specific job of classification and thanks to the material speed variation, the layer remains more constant.

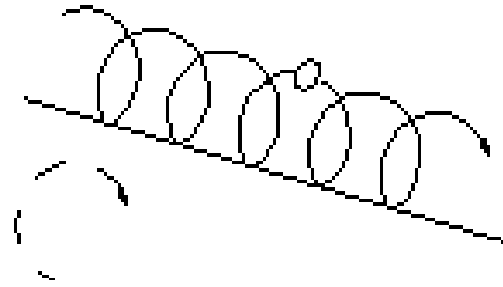
## BENEFITS

- High yield and quality in the classified product.
- Specially designed and manufactured to withstand the harshest working conditions.
- Their features offer quality, simple installation and maintenance, and engineered for maximum yield and an efficient classification,
- Our equipment is specially designed to withstand the most demanding work regimes
- L&H/Athox offers a portfolio with different types and sizes of screens, including personalized solutions in order to meet the needs of its customers.

# TECHNICAL SPECIFICATIONS

## TYPE OF VIBRATION

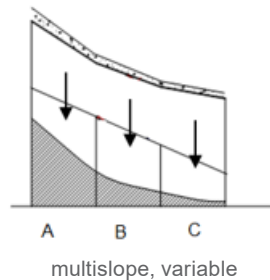
The circular motion sieves have only one vibrating element, composed of a main shaft and at their ends have adjustable counterweights, thus facilitating the adjustment of the equipment amplitude, this set of shaft and counterweights is supported on self-compensating roller bearings, lubricated by grease or oil and protected by labyrinths and retainers in order to guarantee a smooth function and a long life to the equipment.



Screen drives are direct through drive shaft transmission, a system that allows for a smoother and quieter operational performance of the equipment.

The fixing of the screens on the vibrating frames can be done through tensioning side rulers or wooden wedge for steel screens depending on the opening and diameter of the wire and can also be fitted with required stitching to facilitate the installation of the rubber and or polyurethane screens.

On the Modular Multislope screen, there is better use of the screening area, since in each section there is a specific classification job and thanks to the speed variation, the layer remains more constant.

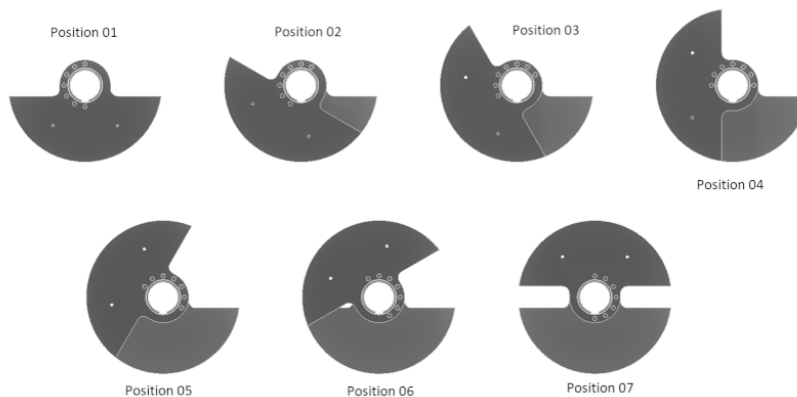


Sector	Inclination	Material Flow Speed	Screening Capacity	Efficiency
A	High	High	High	Low
B	Medium	Medium	Medium	Medium
C	Low	Low	Low	High

Depending on the number of fines in the feed, the use of a modular multislope screen could allow for an increased throughput of 25-30% compared to traditional screens of the same size.

## ADVANTAGES

- Increased acceleration enabling sorting of difficult materials.
- Transmission between the vibrator and motor made by drive shaft with reduced movement, have undeniable advantages over transmission by “V” belts, with drives vibrating together with the screen.
- All critical structural elements were calculated and verified by finite element analysis.
- In modular screens, it is possible to work with different amplitudes in each module, resulting in better use of the equipment’s efficiency..
- To guarantee the transverse rigidity of the screens, linear tubes are connected to the transverse beams the length of the screen.
- All rotating elements come with protection, meeting NR-12 safety standards.
- The vibrator has 7 eccentricity positions, allowing you to change the amplitude in a few minutes.



VIBRATOR SETTINGS							
WEIGHT POSITION	1	2	3	4	5	6	7
VIBRATION FORCE %	100%	97%	90%	80%	70%	63%	60%

## EASE OF ADJUSTMENT

An easily accessible system is located on the side of the machine and controls the vibratory motion. Vibrating element is accomplished by a concentric shaft with two adjustable counterweights for easy adjustment of the amplitude of the equipment. Shaft is supported on self-aligning roller bearings and protected by covers, labyrinths and retainers for protection from the work environment. Grease or oil lubrication ensures smooth operation and long-lasting durability.

## MANUFACTURING

Structure manufactured in carbon steel and mounted on special steel springs. The junction between body and frames-decks, are fixed by bolts, thus avoiding weld in the side plates. Dimensioned to ensure optimal performance to the vibratory motion and can be supplied with a designed structural steel base to fit your plant and ensure ease of installation.

The screen mounting is supported by four spring supports at each corner of the structure to provide work stability to the equipment, mounted on a lateral reinforcement.

Transverse weld manufactured beams designed for extra reinforced structure and locking between the beams with reinforced steel tubes mounted in a diamond shape for greater rigidity of the decks.

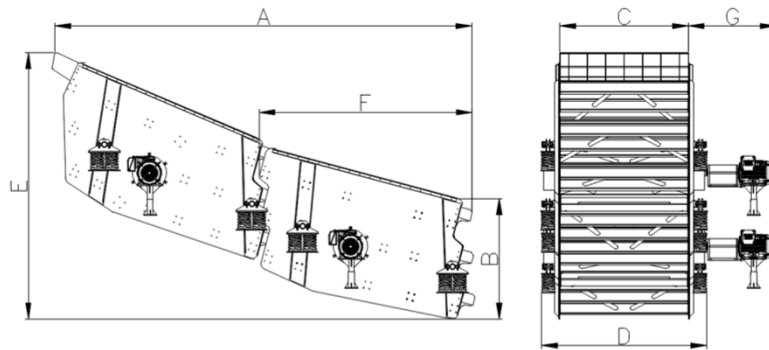
## MANUFACTURING DETAILS CONTINUED

The eccentric mechanism works with one set for each module, supported by two self-aligning roller bearings mounted on the vibrating mechanism between the equipment decks. The mechanical mechanism is bolted to the side plates through the flanges of the protective tube and roller bearings. Main shaft with counterweights at the end allows for adjustment of the amplitude (stroke) of the equipment.

Screens are supplied with electric motor, height-adjustable motor support for assembly adjustment, motor transmission to the equipment is through drive shaft with guards over the weights and drive shaft.

## RUBBER COATED FEED TRAY AND DISCHARGE LIPS

Standardizes the distribution of the material and prevents it from being released directly over the railing or screen reducing premature wear and tear.



## PRODUCT ANALYSIS

Model	No. of Decks	Screen Dimension ft (mm)	Construction	Screening Area ft <sup>2</sup> (m <sup>2</sup> )	Motor Power 8 Poles kW (HP)	Vibration Element Athox Model	Rotation (rpm)	Weight Without skid kgs (lbs)	Dimensions (mm)						
									A	B	C	D	E	F	G
AMS 7' x 20'	2	7' x 20' (2.135 x 6.100)	Modular - Multislopede	140 (13,0)	2 x 14,9 (2 x 20)	EVA-04	880	9.200 (20.280)	6.750	1460	2135	2855	3870	3435	1585
	3				2 x 18,6 (2 x 25)	EVA-04		9.800 (21.605)	6.750	2250	2135	2855	4580	3475	1650
	4				2 x 22,3 (2 x 30)	EVA-05		11.800 (26.014)	6.865	2825	2135	2855	5080	3495	1730
AMS 7' x 24'	2	7' x 24' (2.135 x 7.320)	Modular - Multislopede	168 (15,6)	2 x 14,9 (2 x 20)	EVA-04	880	10.900 (24.030)	7.950	1485	2135	2855	4115	3990	1585
	3				2 x 18,6 (2 x 25)	EVA-05		12.200 (26.900)	7.950	2275	2135	2855	5050	4030	1650
	4				2 x 22,3 (2 x 30)	EVA-05		13.600 (29.990)	8.065	2845	2135	2855	5550	4060	1730
AMS 8' x 20'	2	8' x 20' (2.440 x 6.100)	Modular - Multislopede	160 (14,9)	2 x 18,6 (2 x 25)	EVA-04	880	10.900 (24.030)	6.750	1460	2440	3160	3870	3435	1650
	3				2 x 18,6 (2 x 25)	EVA-04		11.500 (25.355)	6.750	2250	2440	3160	4580	3475	1650
	4				2 x 22,3 (2 x 30)	EVA-05		13.500 (29.765)	6.865	2825	2440	3160	5080	3495	1650
AMS 8' x 24'	2	8' x 24' (2.440 x 7.320)	Modular - Multislopede	192 (17,9)	2 x 18,6 (2 x 25)	EVA-04	880	12.100 (26.675)	7.950	1485	2440	3160	4115	3990	1650
	3				2 x 18,6 (2 x 25)	EVA-05		13.400 (29.540)	7.950	2275	2440	3160	5050	4030	1650
	4				2 x 22,3 (2 x 30)	EVA-05		14.800 (32.630)	8.065	2845	2440	3160	5550	4060	1730
AMS 10' x 20'	2	10' x 20' (3.050 x 6.100)	Modular - Multislopede	200 (18,6)	2 x 29,8 (2 x 40)	EVA-06	885	16.800 (37.040)	6.750	1460	3050	3770	3870	3435	1730
	3				2 x 29,8 (2 x 40)	EVA-06		18.200 (40.125)	6.750	2250	3050	3770	4580	3475	1730
AMS 10' x 24'	2	10' x 24' (3.050 x 7.320)	Modular - Multislopede	240 (22,3)	2 x 29,8 (2 x 40)	EVA-06	885	18.500 (40.785)	7.950	1485	3050	3770	4115	3990	1730
	3				2 x 29,8 (2 x 40)	EVA-06		20.200 (44.535)	7.950	2275	3050	3770	5050	4030	1730