Cement Finish Mill – Dual Compartment

Microphone Location:

The Microphone on the first compartment in this instance is the most critical and important element. This microphone should be placed about 1/3 of the way from the feed end. If it is too far forward, the sound will not be responsive to recirculating load changes. If it is too far back, the sound will not be responsive to new feed changes. The discharge microphone should be mounted approximately 1/3 of the way from the discharge end. However, if problems of plugging with the discharge grate occur, move this microphone to within three bolt rows of the discharge end.



Sonic Sensor Amplifier Frequency:

3300 Hz 2500 Hz

Equipment Required:	MillMinder ASC-2 Two Channel Two Millphone Microphones
Optional Equipment:	Nema 4 Steel Enclosure Nema 4 Stainless Steel Enclosure

Cement, Rock (Wet and Dry) Mill - Single Compartment

Microphone Location:

On this type of mill, the microphone position is not extremely critical, however, experience indicates that the microphone should be mounted just forward of the center of the mill. Mounting between 1/3 and 1/2 from the feed end should easily prove this. In general, with high re-circulating loads, move the microphone towards the feed end and with low re-circulating loads, move the microphone towards the discharge end.



Equipment Required:	MillMinder ASC-2 Single Channel One Millphone Microphone
Optional Equipment:	Nema 4 Steel Enclosure Nema 4 Stainless Steel Enclosure

Cement Raw Mill (Wet) - Dual Compartment

Microphone Location:

On these mills, the feed end microphone should be placed fairly close to the discharge end of the primary compartment. This is required because of "water" noise signals caused when the surface area presented by the coarse feed to absorb the water is very small. As a result the water flushes through the area before the rock is broken down giving erroneous signals. The feed end microphone is primarily used to prevent plugging of this discharge grate into the second or succeeding compartments. The microphone on the discharge compartment should be located between 1/3 and 1/2 of the compartment length from the feed end. Here a good homogeneous mixture of slurry should exist and a normal sound signal should result if density is held constant.



Sonic Sensor Amplifier Frequency:		1000 Hz
		3300 Hz
Equipment Required:	MillMinder ASC Dual Channel Two Millphone N	-2 Aicrophone
Optional Equipment:	Nema 4 Steel End Nema 4 Stainless	closure Steel Enclosure

Aerofall (Sag) Mill - Single Compartment

Microphone Location:

Microphone should be mounted at the 6 o'clock position with the midpoint along the length of the grinding area. Wet mills may have a lifting chamber which will add to mill length. However, do not include this section when centering microphone. Place microphone as close as possible to the mill shell. Beware of flanges which are used to bolt the mill shell together. If ambient noise level is high, shield microphone.



Sonic Sensor Amplifier Frequency:

3300 Hz as supplied 2100 Hz best dry/wet 1750 Hz wet, small feed

Equipment Required:	MillMinder ASC-2 Single Channel One Millphone Microphone
Optional Equipment:	Nema 4 Steel Enclosure Nema 4 Stainless Steel Enclosure

Cascade Type Mill - Single Compartment

Microphone Location:

The Microphone on these types of mills should be placed below the toe of the charge. The exact position being defined as a result of how much the mill charge volume changes. The microphone must be at least 0.5 hours below the lowest charge "TOE". Trial and error will be the final judge as to whether the microphone should be lower.



Sonic Sensor Amplifier Frequency:	3300 Hz as supplied
	2100 Hz – probable
	1000 Hz – probable

Equipment Required:	MillMinder ASC-2 Single Channel One Millphone Microphones
Optional Equipment:	Nema 4 Steel Enclosure Nema 4 Stainless Steel Enclosure

Rod Mill - Single Compartment

Microphone Location:

The Microphone on these types of mills should be placed roughly 1/3 of the way from the discharge end. However, trial and error selection should also include observation at 1 row of bolts either side of the 1/3 position. The microphone should be mounted well down and not higher than 5 o'clock, with 5:15 to 5:30 being the preferable location, especially if rod mill speeds are around 75% critical.



Equipment Required:	MillMinder ASC-2 Single Channel One Millphone Microphones
Optional Equipment:	Nema 4 Steel Enclosure Nema 4 Stainless Steel Enclosure

Regrind Mill - Single Compartment

Microphone Location:

The Microphone should be placed approximately ½ way along the mill length slightly toward the discharge end. The microphone should be placed between 4:30 and 5:45 depending on the mill speed and charge. Generally, approximately 5:15 should be the optimal position.



Sonic Sensor Amplifier Frequency:	300
	100
	~ ~

8000 Hz .000 Hz 350 Hz

Equipment Required:	MillMinder ASC-2 Single Channel One Millphone Microphones
Optional Equipment:	Nema 4 Steel Enclosure Nema 4 Stainless Steel Enclosure

Coal Mill, Air Swept, Single Discharge – Dual Compartment

Microphone Location:

The Microphone should be placed approximately in the center of the first grinding compartment. The discharge microphone should be located about 1/3 of the way from the mill discharge.



Sonic Sensor Amplifier Frequency: 3300 Hz

Equipment Required:	MillMinder ASC-2 Two Channel Two Millphone Microphones
Optional Equipment:	Nema 4 Steel Enclosure Nema 4 Stainless Steel Enclosure

Center Discharge, Airswept – Dual Compartment

Microphone Location:

The Microphone on the feed end should be mounted approximately 1/3 to 1/2 distance from the feed end of the primary grinding compartment. the microphone on the secondary grinding compartment should be located about the center of that compartment.



Equipment Required:	MillMinder ASC-2 Two Channel Two Millphone Microphones
Optional Equipment:	Nema 4 Steel Enclosure Nema 4 Stainless Steel Enclosure

Airswept – Single Compartment

Microphone Location:

The Microphone should be located about 1/3 of the distance from the feed end of the mill.



Equipment Required:	MillMinder ASC-2 Single Channel One Millphone Microphones
Optional Equipment:	Nema 4 Steel Enclosure Nema 4 Stainless Steel Enclosure