

## Tutorial 2

### HP Selection from Octave Bands

The noise levels for a machinery operator have been measured and are listed in the table below. Check first if the noise exposure exceeds 85 dBA. If so check the “in ear noise” level for the two options of hearing protectors which are currently available at the facility – ear plugs and ear muffs. Which of these would you recommend for use by this operator?

<b>Frequency</b>	<b>125</b>	<b>250</b>	<b>500</b>	<b>1,000</b>	<b>2,000</b>	<b>4,000</b>	<b>8,000</b>	<b>Total</b>
<b>Source</b>	85	87	92	94	96	94	90	100.9
<b>A-Weighting</b>	-16.1	-8.6	-3.2	0	1.2	1	-1.1	
<b>PLUGS mean attenuation</b>	22	22.8	23.6	24.3	32.5	40.3	37.6	
<b>One Std Deviation</b>	9.8	8.8	9.2	7.7	6.6	5.2	7	
<b>MUFFS mean attenuation</b>	22	22.8	23.6	24.3	32.5	40.3	37.6	
<b>One Std Deviation</b>	9.8	8.8	9.2	7.7	6.6	5.2	7	

## Blank Tables for Calculations

Frequency	125	250	500	1,000	2,000	4,000	8,000	Total
Source								
A-Weighting								
A-Weighted Source								
HP mean attenuation								
One Std Deviation								
Mean atten – 1 std dev								
In ear noise level								

Frequency	125	250	500	1,000	2,000	4,000	8,000	Total
Source								
A-Weighting								
A-Weighted Source								
HP mean attenuation								
One Std Deviation								
Mean atten – 1 std dev								
In ear noise level								