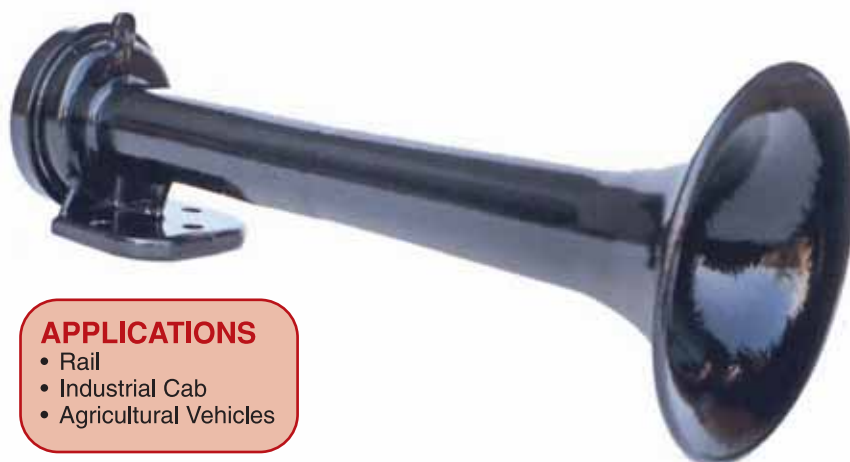




Model CS-1 Directional, Single Tone Urban/Inter-City Rail Air Horn



- Ideal for urban/inter-city rail applications, horn can withstand harsh environmental conditions and high speed train vibrations.
 - Single tone 311Hz fundamental frequency, engineered to produce full harmonic contents up to 12 octaves which greatly enhance warning effectiveness.
 - Horn is energy efficient and operates on a wide range of pressures.
 - Horn construction - high strength aluminium casting, stainless steel diaphragm discs and fasteners.
- * Signal will produce a sound pressure level of approximately 65 dB @2km in calm, cool conditions without topographical interference. Signal strength at distance can vary dramatically depending on environmental and geographical conditions. Please consult factory for more detailed information.

- APPLICATIONS**
- Rail
 - Industrial Cab
 - Agricultural Vehicles

Control	Manual, solenoid or combination valve
SPL (Loudness on Total)	132 ± 1 dB(A) & (C) @ 1 metre, 3/32" Orifice
Operating Medium	Air, nitrogen, CO2, 1/4" BSPT inlet
Air Consumption	7 L/sec (13 SCFM) @ 7 bar (100 PSIG)
Audibility	2km on still air at 20°C
Fundamental Frequency	311 Hz ± 20 Hz
Tone (Musical Note)	E4 Flat
Operating Pressure	3 - 10 bar (50 - 150 PSI)
Operating Temperature	-20°C to +85°C (-4°F to +185°F) on dry air
Finish	Primed and painted black
Degree of Protection	IP 54
Basic Dimension	356 x 143 x 143mm (14 x 6 x 6")
Net Weight	1.1kg (2.4 lbs)

Model CS-2 Directional, Single Tone Urban/Inter-City Rail Air Horn



- Ideal for urban/inter-city rail applications, horn can withstand harsh environmental conditions and vibrations.
 - Single tone 370Hz fundamental frequency, engineered to produce full harmonic contents up to 12 octaves which greatly enhance warning effectiveness.
 - Horn is energy efficient and operates on a wide range of pressures.
 - Horn construction - high strength aluminium casting, stainless steel diaphragm discs and fasteners.
- * Signal will produce a sound pressure level of approximately 65 dB @2km in calm, cool conditions without topographical interference. Signal strength at distance can vary dramatically depending on environmental and geographical conditions. Please consult factory for more detailed information.

Control	Manual, solenoid or combination valve
SPL (Loudness on Total)	132 ± 1 dB(A) & (C) @ 1 metre, 3/32" Orifice
Operating Medium	Air, nitrogen, CO2, 1/4" BSPT inlet
Air Consumption	7 L/sec (13 SCFM) @ 7 bar (100 PSIG)
Audibility	2km on still air at 20°C
Fundamental Frequency	370 Hz ± 20 Hz
Tone (Musical Note)	G4 Flat
Operating Pressure	3 - 10 bar (50 - 150 PSI)
Operating Temperature	-20°C to +85°C (-4°F to +185°F) on dry air
Finish	Primed and painted black
Degree of Protection	IP 54
Basic Dimension	302 x 143 x 143mm (12 x 6 x 6")
Net Weight	0.9kg (2 lbs)

Model KS-1 Single Tone Locomotive Air Horn



- Ideal for locomotive applications, horn designed to withstand harsh environmental conditions and vibrations.
- Single tone 311Hz fundamental frequency, engineered to produce full harmonic contents up to 12 octaves which greatly enhance warning effectiveness.
- Horn is energy efficient with hermetically sealed diaphragm assembly which allows horn to operate on a wide range of pressures without tuning or adjustment.
- Horn construction - high strength aluminium casting, stainless steel diaphragm discs and fasteners.

* Signal will produce a sound pressure level of approximately 70 dB @ 2.5km in calm, cool conditions without topographical interference. Signal strength at distance can vary dramatically depending on environmental and geographical conditions. Please consult factory for more detailed information.

APPLICATIONS

- Rail
- Industrial Cab
- Agricultural Vehicles

Control	Manual, solenoid or combination valve
SPL (Loudness on Total)	140 ± 1 dBA @ 1 metre
Operating Medium	Air, nitrogen, CO2, 1/2" BSPT inlet
Air Consumption	11 L/sec (24 SCFM) @ 7 bar (100 PSIG)
Audibility	2.5 km on still air at 20°C
Fundamental Frequency	311 Hz ± 15 Hz
Tone (Musical Note)	E Flat
Operating Pressure	3 - 10 bar (50 - 150 PSI)
Operating Temperature	-40°C to +85°C (-40°F to +185°F) on dry air
Finish	Primed and painted black alkyd enamel
Degree of Protection	IP 44
Basic Dimension	432 x 230 x 229mm (17 x 8 x 9")
Net Weight	3.2kg (7 lbs)

Model KS-2 Single Tone Locomotive Air Horn



- Ideal for locomotive applications, horn designed to withstand harsh environmental conditions and vibrations.
- Single tone 370Hz fundamental frequency, engineered to produce full harmonic contents up to 12 octaves which greatly enhance warning effectiveness.
- Horn is energy efficient with hermetically sealed diaphragm assembly which allow horn to operate on a wide range of pressures without tuning or adjustment.
- Horn construction - high strength aluminium casting, stainless steel diaphragm discs and fasteners.

* Signal will produce a sound pressure level of approximately 70 dB @ 2.5km in calm, cool conditions without topographical interference. Signal strength at distance can vary dramatically depending on environmental and geographical conditions. Please consult factory for more detailed information.

Control	Manual, solenoid or combination valve
SPL (Loudness on Total)	140 ± 1 dBA @ 1 metre
Operating Medium	Air, nitrogen, CO2, 1/2" BSPT inlet
Air Consumption	11 L/sec (24 SCFM) @ 7 bar (100 PSIG)
Audibility	2.5 km on still air at 20°C
Fundamental Frequency	370 Hz ± 15 Hz
Tone (Musical Note)	G4 Flat
Operating Pressure	3 - 10 bar (50 - 150 PSI)
Operating Temperature	-40°C to +85°C (-40°F to +185°F) on dry air
Finish	Primed and painted black alkyd enamel
Degree of Protection	IP 54
Basic Dimension	325 x 230 x 229mm (13 x 8 x 9")
Net Weight	2.8 kg (7 lbs)

Model KS-5 Directional, Single Tone Locomotive Air Horn



- Ideal for locomotive applications, horn designed to withstand harsh environmental conditions and vibrations.
 - Single tone 622Hz fundamental frequency, engineered to produce full harmonic contents up to 12 octaves which greatly enhance warning effectiveness.
 - Horn is energy efficient with hermetically sealed diaphragm assembly which allows horn to operate on a wide range of pressures without tuning or adjustment.
 - Horn construction - high strength aluminium casting, stainless steel diaphragm discs and fasteners.
- * Signal will produce a sound pressure level of approximately 70 dB @ 2.5km in calm, cool conditions without topographical interference. Signal strength at distance can vary dramatically depending on environmental and geographical conditions. Please consult factory for more detailed information.

APPLICATIONS

- Rail
- Industrial Cab
- Agricultural Vehicles

Control	Manual, solenoid or combination valve
SPL (Loudness on Total)	139 ± 1 dBA @ 1 metre
Operating Medium	Air, nitrogen, CO2, 1/2" BSPT inlet
Air Consumption	18 L/sec (38 SCFM) @ 7 bar (100 PSIG)
Audibility	2.5 km on still air at 20°C
Fundamental Frequency	622 Hz ± 20 Hz
Tone (Musical Note)	E5 Flat
Operating Pressure	3 - 10 bar (50 - 150 PSI)
Operating Temperature	-40°C to +85°C (-40°F to +185°F) on dry air
Finish	Primed and painted black
Degree of Protection	IP 54
Basic Dimension	205 x 186 x 152mm (8 x 7.3 x 6")
Net Weight	2.5kg (5.5 lbs)

Model SW-1X7 Omni-directional, Single Tone Light Rail / Depot Whistle



- Ideal for light rail/depot applications when standard locomotive horns are too loud for public comfort.
 - Single tone 685Hz fundamental frequency. Omni-directional with traditional steam whistle sound.
 - Rugged solid brass construction for durability.
 - Available on sound output range from 113 to 100 dBA at 1 metre. Consult factory for more details.
- * Signal will produce a sound pressure level of approximately 65 dB @ 100m in calm, cool conditions without topographical interference. Signal strength at distance can vary dramatically depending on environmental and geographical conditions. Please consult factory for more detailed information.

Control	Manual, solenoid or combination valve
SPL (Loudness on Total)	108 ± 1 dBA @ 1 metre
Operating Medium	Air, 3/8" BSP internal and 3/4" BSP external
Air Consumption	7 L/sec (13 SCFM) @ 6 bar (85 PSIG)
Audibility	100 metres on still air at 20°C
Fundamental Frequency	685 Hz ± 15 Hz
Tone (Musical Note)	F5 Natural
Operating Pressure	3 - 10 bar (50 - 150 PSI)
Operating Temperature	-20°C to +85°C (-4°F to +185°F) on dry air
Finish	Natural Yellow Brass
Degree of Protection	IP 44
Basic Dimension	203 x 32mm (8 x 1.25")
Net Weight	0.6kg (1.2 lbs)



Model KSV-1 Single Tone Locomotive Air Horn

- Ideal for rail applications, horn can withstand harsh environmental conditions and vibrations.
 - Vertical mount for self-draining or horizontal mount.
 - Single tone 280Hz fundamental frequency, engineered to produce full harmonic contents up to 12 octaves which greatly enhance warning effectiveness.
 - Horn is energy efficient with hermetically sealed diaphragm assembly which allows horn to operate on a wide range of pressures without tuning or adjustment.
 - Horn construction - high strength aluminium casting, stainless steel diaphragm discs and fasteners.
- * Signal will produce a sound pressure level of approximately 70 dB @2.0km in calm, cool conditions without topographical interference. Signal strength at distance can vary dramatically depending on environmental and geographical conditions. Please consult factory for more detailed information.



Control	Manual, solenoid or combination valve
SPL (Loudness on Total)	139 ± 1 dBA @ 1 metre
Operating Medium	Air, nitrogen, CO2, 3/8" BSPP air inlet
Air Consumption	11 L/sec (24 SCFM) @ 7 bar (100 PSIG)
Audibility	2.0 km on still air at 20°C
Fundamental Frequency	280 Hz ± 15 Hz
Tone (Musical Note)	D4
Operating Pressure	3 - 10 bar (50 - 150 PSI)
Operating Temperature	-40°C to +85°C (-40°F to +185°F) on dry air
Finish	Primed and painted black alkyd enamel
Degree of Protection	IP 54
Basic Dimension	386 x 247 x 197mm (15.3 x 8.9 x 7.75")
Net Weight	3.6kg (7.9 lbs)

- APPLICATIONS**
- Rail
 - Industrial Cab
 - Agricultural Vehicles

Model KSV-2 Single Tone Locomotive Air Horn



- Ideal for rail applications, horn can withstand harsh environmental conditions and vibrations.
 - Vertical mount for self-draining or horizontal mount.
 - Single tone 330Hz fundamental frequency, engineered to produce full harmonic contents up to 12 octaves which greatly enhance warning effectiveness.
 - Horn is energy efficient with hermetically sealed diaphragm assembly which allows horn to operate on a wide range of pressures without tuning or adjustment.
 - Horn construction - high strength aluminium casting, stainless steel diaphragm discs and fasteners.
- * Signal will produce a sound pressure level of approximately 70 dB @2.0km in calm, cool conditions without topographical interference. Signal strength at distance can vary dramatically depending on environmental and geographical conditions. Please consult factory for more detailed information.

Control	Manual, solenoid or combination valve
SPL (Loudness on Total)	139 ± 1 dBA @ 1 metre
Operating Medium	Air, nitrogen, CO2, 3/8" BSPP air inlet
Air Consumption	11 L/sec (24 SCFM) @ 7 bar (100 PSIG)
Audibility	2.0 km on still air at 20°C
Fundamental Frequency	330 Hz ± 20 Hz
Tone (Musical Note)	E4
Operating Pressure	3 - 10 bar (50 - 150 PSI)
Operating Temperature	-40°C to +85°C (-40°F to +185°F) on dry air
Finish	Primed and painted black alkyd enamel
Degree of Protection	IP 54
Basic Dimension	321 x 226 x 184mm (12.6 x 8.9 x 7.25")
Net Weight	3.1 kg (6.8 lbs)

Nathan Airchime Model P1A Single Tone Locomotive Air Horn



- Ideal for passenger and commuter applications, with a long running track record.
- Horns are designed and engineered to produce full harmonic content up to 12 octaves to greatly enhance warning effectiveness.
- Constructed with high strength sand-cast aluminium for durability and reliability.
- Operate efficiently on a wide range of pressures without tuning and field adjustment.

APPLICATIONS

- Rail
- Industrial Cab
- Agricultural Vehicles

Operating Medium	Compressed air, nitrogen, CO ₂ , 3/8" NPT inlet
Control	Manual, solenoid or combination valve
SPL (Loudness on Total)	138 ± 1 dBA @ 1 metre
Air Consumption	8 L/sec (17 SCFM) @ 7 bar (100 PSIG)
Audibility	2.5 km on still air, +20°C
Fundamental Frequency	277 Hz ± 4%
Tone (Musical Note)	C4 Sharp
Operating Pressure	3 - 10 bar (50 - 150 PSI)
Operating Temperature	-30°C to +85°C (-34°F to +185°F) on dry air
Finish	Natural Aluminium or Painted (upon request)
Degree of Protection	IP 44
Basic Dimension	485 x 171 x 189mm (19 x 6.7 x 7.5")
Net Weight	2.5 kg (5.6 lbs)

Nathan Airchime Model P14R2 Three Tone Locomotive Air Horn



- Horns are designed and engineered to produce full harmonic content up to 12 octaves to greatly enhance warning effectiveness. A voice of railroad for over 50 years
- Three tone with 277Hz leading frequency to improve audibility to command motorist attentions. Overall chord produces a mellow and soothing effect which lowers public noise complaints.
- Operate efficiently on a wide range of pressures without tuning and field adjustment.
- All bells are reversible. Unit supplied un-painted.

Operating Medium	Compressed air, nitrogen, CO ₂ , 1/2" NPT inlet
Control	Manual, solenoid or combination valve
SPL (Loudness on Total)	141 ± 1 dBA @ 1 metre
Air Consumption	21 L/sec (45 SCFM) @ 7 bar (100 PSIG)
Audibility	3 km on still air, +20°C
Fundamental Frequency	277 / 330 / 440 Hz ± 4%
Tone (Musical Note)	C4 Sharp / E4 Natural / A4 Natural
Operating Pressure	3 - 10 bar (50 - 150 PSI)
Operating Temperature	-30°C to +85°C (-34°F to +185°F) on dry air
Finish	Natural Aluminium or Painted (upon request)
Degree of Protection	IP 44
Basic Dimension	787 x 304 x 406mm (31 x 12 x 16")
Net Weight	7 kg (15 lbs)

Nathan Airchime

Model P12345

Five Tone Locomotive Air Horn



- Horns are designed and engineered to produce full harmonic content up to 12 octaves to greatly enhance warning effectiveness. A voice of railroad for over 50 years
- Three tone with 277Hz leading frequency to improve audibility to command motorist attentions. Overall chord produces a mellow and soothing effect which lowers public noise complaints.
- Operate efficiently on a wide range of pressures without tuning and field adjustment.
- All bells are reversible. Unit supplied un-painted.

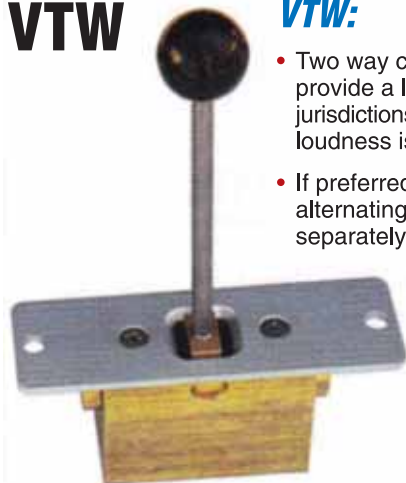
Operating Medium	Compressed air, nitrogen, CO ₂ , 1/2" NPT inlet
Control	Manual, solenoid or combination valve
SPL (Loudness on Total)	142 ± 1 dBA @ 1 metre
Air Consumption	35 L/sec (75 SCFM) @ 7 bar (100 PSIG)
Audibility	3 km on still air, +20°C
Fundamental Frequency	277 / 330 / 392 / 440 / 554 Hz ± 4%
Tone (Musical Note)	C4 Sharp / E4 Natural / G4 Natural / A4 Natural / C5 Sharp
Operating Pressure	3 - 10 bar (50 - 150 PSI)
Operating Temperature	-30°C to +85°C (-34°F to +185°F) on dry air
Finish	Natural Aluminium or Painted (upon request)
Degree of Protection	IP 44
Basic Dimension	787 x 304 x 406mm (31 x 12 x 16")
Net Weight	7 kg (15 lbs)

APPLICATIONS

- Rail
- Industrial Cab
- Agricultural Vehicles

Valves

VTW



VTW:

- Two way control valve is designed to provide a loud or soft signal for use in jurisdictions where minimum and maximum loudness is regulated.
- If preferred, this valve can facilitate an alternating signal between two single and separately piped horns.

VFW



VFW:

- Four way control valve combines an alternating signal ability with the loud and soft signal feature.

Solenoid and basic manual valves are also available