### ROCKY RIVER BOARD OF ZONING & BUILDING APPEALS INSTRUCTIONS TO APPLICANTS

MEETINGS: 2nd Thursday of each month at 7:00 P.M. in Council Chambers of Rocky River City Hall.

**DUE DATE FOR SUBMITTALS:** 2 weeks (14 days) prior to the scheduled BZA meeting. Late or incomplete submittals will not be forwarded to the Board for inclusion on the upcoming agenda.

WHO MUST ATTEND: A representative, including the property owner, must be present at the BZA meeting for all variance requests.

APPLICATION FEE: Residential Variance - \$100.00 first variance+ \$35.00 each additional variance Commercial Variance - \$150.00 first variance+ \$35.00 each additional variance request.

SUBMISSION REQUIREMENTS: Please provide 11 stapled sets of the following:

- Appropriate Building Permit Application for your project. (i.e., Building Permit Application, Fence Permit Application, Accessory Permit Application, etc.); Check representing Application Fee.
- 2) Fully completed Variance Application. Begin with a written narrative describing exactly what project you would like to do and why it is necessary to do so. Please refer to the Typical Variance Sheet for guidance on which standard (Practical Difficulty OR Unnecessary Hardship) applies to your request only complete questions under the appropriate heading.
- 3) Detailed site drawing- see attached example, showing all existing structures on the subject property, as well as structures on properties directly adjacent to the location of the subject of your variance request (i.e., line of neighbor's house, driveway and garage closest to the addition you are proposing). Proposed structures must also be shown on the site drawing, with dimensions and distances from property lines clearly labeled. PLEASE STAKE THE PROPERTY TO SHOW FOOTPRINT OF ADDITIONS, SHEDS OR LOCATIONS OF A/C CONDENSERS, etc. Site plan should show lot coverage by building calculation (existing and proposed).
- 4) Elevation drawings (for pergola, garage, addition or any exterior alteration). Show what all sides of the finished project will look like. Submit a photo example of proposed fences and sheds. Show height of structure on the elevations. Additions will require existing and proposed interior floor plans for the floors that are affected.
- 5) Photographs of your property and adjacent properties. Label each photo for clarity.
- 6) Support letters from surrounding property owners, if available.
- 7) Any other information as may be requested by the Building Department or Board Members.

All documentation or other information shall be delivered to:

Rocky River Board of Zoning & Building Appeals, City of Rocky River Building Department, 21012 Hilliard Blvd., Rocky River, Ohio 44116. Call 440-331-0600 ext. 2037 with questions. (Applicants may not communicate with or present information relating to their variance request to any Board member directly. Communications must be submitted to the Building Department for delivery to the Board.)

I, (the owner/applicant) understand that upon the granting of my variance request from the BZA, a separate Permit Application fee will be due prior to the issuance of the Building Permit. <u>I will not begin construction until the Building Permit has been issued.</u>

David Hein	9/22/2025	David Hein	9/22/2025
Property Owner	Date	Applicant/Representative	Date

BZA Application Fee:	Date Paid:
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### CITY OF ROCKY RIVER

21012 Hilliard Blvd., Rocky River, Ohio 44116 Telephone (440) 331-0600 - Fax (440) 895-2628

### APPLICATION FOR BOARD OF ZONING & BUILDING APPEALS

(Please Print or Type)

Application Filing Date: 9 / 2 2 / 2 0 2 5 Zoning of Property Residential	Hearing Date: Permanent Parcel No	
NOTICE OF REQUEST BOARD OF ZONIN	OF A HEARING BEFORE T NG & BUILDING APPEALS	ГНЕ
Address of property seeking variance: 212	298 Endsley Avenue	
David Hein	David Hein	
Name of Property Owner	Name of Applican	n/ Representative
21298 Endsley Avenue Address	Addı	ress
440-336-5382	Telephone No	Cell Phone No
Telephone No. Cell Phone No.		CH FROM NO.
E-MAIL: david,a.hein@gmail.com	E-MAIL:	
Description of what is intended to be done:	8	
Install 26kw Briggs & Stratton backup power generat	or along the side of house	
where existing AC units are installed and running whi		behind a sandstone wall and landscaping
designed and installed to abate sound and visual priva-		
designed and installed to abate sound and visual prival	<u> </u>	
Sections of the Code from which variance	is being requested:	
List variances requested:  To install backup generator with necessary sound deal	dening methods in a location that is (	7.8 feet from property line which
is 2 feet 4 inches short of code restriction.		
Property Owner's Signature	Applicant/Represe	entative's Signature
Please note that the Board members visi Please indicate whether or not you have a d	t the subject property prior to og(s) that may be outside at the	each BZA meeting. e time of their visits.

No

Rev. 8/21

Yes

### TYPICAL VARIANCE SHEET

Please check appropriate box and answer questions as directed. Check as Applicable VARIANCE STANDARD Any functional, land or building (Use) Unnecessary Hardship USE not specifically permitted in either a particular zoning district, or otherwise not permitted by the Development Code ADDITIONS & BUILDINGS: (Complete Building Permit Application) Rear, side & front setbacks (Area) Practical Difficulties Coverage (>28%) П (Area) Practical Difficulties DRIVEWAYS: (Complete Building Permit Application) Width (Area) Practical Difficulties Distance from property line H (Area) Practical Difficulties Circular iflot width is <90' (Area) Practical Difficulties SIGNS: (Complete Sign Permit Application) Area allowed (maximum sq. ft.) (Area) Practical Difficulties Height (Area) Practical Difficulties Front setback (Area) Practical Difficulties Lot width <100' (Area) Practical Difficulties Number of items of information (Area) Practical Difficulties On side of building (Area) Practical Difficulties FENCES: (Complete Fence Permit Application) Height or Openness (Area) Practical Difficulties (Area) Practical Difficulties Front Yard (in setback) ACCESSORY BUILDINGS (Play Structures, Storage Sheds: (Complete Accessory Structure Permit Application); Detached Garages: (Complete Building Permit Application) Note: Total square footage of all accessory buildings, including detached garages, is not to exceed 600 square feet.) Height (Area) Practical Difficulties H Setback from property line (Area) Practical Difficulties (Area) Practical Difficulties Square footage Air Conditioners and Generators: (Complete HVAC Permit for A/C or Electrical Permit for Generators) In side or rear yard <10' from (Area) Practical Difficulties property line or in front yard Parking: (Complete Building Permit Application) < the number of spaces required (Area) Practical Difficulties Setback from property line (Area) Practical Difficulties

### PRACTICAL DIFFICULTIES

### ALL QUESTIONS REQUIRE A COMPLETE RESPONSE

R.R.C.O. 1133.17(c)(l). In order to grant an area variance, the following factors shall be considered and weighted by the Board of Appeals to determine <u>practical difficulty:</u>

A.) Describe what special conditions and circumstances exist which are peculiar to the land or structure involved and which are not applicable generally to other land or structures in the same zoning district (i.e., exceptional irregularity, narrowness, shallowness or steepness of the lot; or proximity to non-conforming and inharmonious uses, structures or conditions).

The existing location of both gas and electric service are installed with proximity and accessibility to the location requested with the variance. Adequate space, and functional access to the location are available including the continuation of landscaping and sandstone which provides space for generator, housing and any additional sound deadening materials that may be necessary to be installed below the sandstone to further minimize sound from generator from the front of the house and property line.

B.)	Explain whether the property in question will yield a reasonable return or whether there can be any beneficial use of the property without the variance (discuss use limitations without the variance).
The ad	dition of a generator provides both security in the event of a power outage as well as the ability to both heat the home in the instance and the instance of the security in the event of a power outage as well as the ability to both heat the home in the instance of the security is a power outage to prevent frozen pipes and allow for uninterrupted functioning of sump pumps to prevent water backup.
C.)	Explain whether the variance is substantial and is the minimum necessary to make possible the reasonable use of the land or structures (demonstrate how much the variance request deviates from Code requirements, i.e., coverage is 1 or 2% above Code, or setback is 1 or 2 feet less than Code requirement).
Proper	ty line is 7.8 feet from the installation which is 2 feet 4 inches short of code restriction
D.)	Explain whether the essential character of the neighborhood would be substantially altered and whether adjoining properties would suffer substantial detriment as a result of the variance (discuss the increase of value, use, and aesthetic appeal for both your property and adjoining properties, together with any negative impact to adjoining properties).
The es	sential character of the neighborhood will not be altered or impacted by the installation of a generator behind a wall and silenced ag any of the sound dampening techniques and materials necessary to remain below noise ordinances.

The variance will not affect the delivery of governmental services in any way whatsoever  F.) Explain whether the property owner purchased the property with knowledge of the zoning restrictions.  I have lived in this house for the majority of my life and have owned the property for over 26 years. Over the last 5 years I have spent considerable time, effort and money specifically to return the property to the architectural character and style of when it was built nearly 100 years ago while dramatically increasing the efficiency, usefulness and making it more environmentally sound using materials and methods to match the character, look and quality of the original construction. I have and will continue to enhance and improve the home and property with the same focus and dedication to preserving its community and historic value.  G.) Explain whether special conditions or circumstances exist as a result of actions of the owner.  H.) Explain whether the property owner's predicament feasibly can be obviated through some method other than a variance (why other means and methods of property improvements or enhancements would not suffice).	E.	Explain whether the variance would adversely affect the delivery of governmental services, such as water, sewer, or trash pickup.
I have lived in this house for the majority of my life and have owned the property for over 26 years. Over the last 5 years I have spent considerable time, effort and money specifically to return the property to the architectural character and style of when it was built nearly 100 years ago while dramatically increasing the efficiency, usefulness and making it more environmentally sound using materials and methods to match the character, look and quality of the original construction. I have and will continue to enhance and improve the home and property with the same focus and dedication to preserving its community and historic value.  G.) Explain whether special conditions or circumstances exist as a result of actions of the owner.  H.) Explain whether the property owner's predicament feasibly can be obviated through some method other than a variance (why other means and methods of property improvements or enhancements would not suffice).	_	The variance will not affect the delivery of governmental services in any way whatsoever
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H.) Explain whether the property owner's predicament feasibly can be obviated through some method other than a variance (why other means and methods of property improvements or enhancements would not suffice).	100 ye	ears ago while dramatically increasing the efficiency, usefulness and making it more environmentally sound using materials and ds to match the character, look and quality of the original construction. I have and will continue to enhance and improve the home
H.) Explain whether the property owner's predicament feasibly can be obviated through some method other than a variance (why other means and methods of property improvements or enhancements would not suffice).	G.)	Explain whether special conditions or circumstances exist as a result of actions of the owner.
other than a variance (why other means and methods of property improvements or enhancements would not suffice).	no	
	Н.)	other than a variance (why other means and methods of property improvements or enhancements
There is no other feasible location to install a backup generator that does not interfere with fresh air intakes installed during the renovation that draw air into the residence structure. There are existing fresh air intakes on the back of the structure and behind the patio to allow	There that dr	is no other feasible location to install a backup generator that does not interfere with fresh air intakes installed during the renovation aw air into the residence structure. There are existing fresh air intakes on the back of the structure and behind the patio to allow
proper airflow and prevent negative structure pressure from vents, fans and gas exhaust on furnaces and hot water tanks as required by code given the increased insulation and vapor barriers added to the structure	proper	airflow and prevent negative structure pressure from vents, fans and gas exhaust on furnaces and hot water tanks as required by
I.) Explain whether the spirit and intent behind the zoning requirement would be observed and substantial justice done by granting a variance (discuss the positive impact of your improvement on your property and on the surrounding neighborhood).	I.)	substantial justice done by granting a variance (discuss the positive impact of your improvement on
The backup power generator is being installed in an area where existing equipment already exists and will not be visible from the street, drive or adjoining properties. The backup power generation is intended to insure that any extended power outages will not cause extensive	The ba	ckup power generator is being installed in an area where existing equipment already exists and will not be visible from the street, radjoining properties. The backup power generation is intended to insure that any extended power outages will not cause extensive
damage by water backup or by pipes freezing and flooding the house in the winter months and provide for both security and fire protection to continue to function in the event of an extended outage.	damage	by water backup or by pipes freezing and flooding the house in the winter months and provide for both security and fire protection
J.) Explain whether the granting of the variance requested will confer on the applicant any special privilege that is denied by this regulation to other lands, structures, or buildings in the same district.	J.)	Explain whether the granting of the variance requested will confer on the applicant any special privilege that is denied by this regulation to other lands, structures, or buildings in the same district.
K.) Explain whether a literal interpretation of the provisions of this Code would deprive the applicant of rights commonly enjoyed by other properties in the same district under the terms of this Code.	K.)	Explain whether a literal interpretation of the provisions of this Code would deprive the applicant of rights commonly enjoyed by other properties in the same district under the terms of this Code.
	-	

PLEASE NOTE: A separate Permit Application and fee will be due prior to issuance of the Building Permit. NO CONSTRUCTION IS TO BEGIN until the Building Permit has been issued.

### UNNECESSARY HARDSHIP STANDARD

ONLY ANSWER THESE QUESTIONS IF YOU ARE REQUESTING AV ARIANCE FOR ANY FUNCTIONAL, LAND OR BUILDING USE NOT SPECIFICALLY PERMITTED IN EITHER A PARTICULAR ZONING DISTRICT, OR OTHERWISE NOT PERMITTED BY THE DEVELOPMENT CODE. (See Typical Variance Sheet for guidance.)

### ALL QUESTIONS REQUIRE A COMPLETE RESPONSE

In order to grant a use variance, the Board of Appeals shall determine that strict compliance with the terms of this Code will result in unnecessary hardship to the applicant. THE APPLICANT MUST DEMONSTRATE SUCH HARDSHIP BY CLEAR AND CONVINCING EVIDENCE that the criteria in Rocky River Codified Ordinances, sub-section 1133.17(c)(2) is satisfied.

R.R.C.O. Chapter 1133.17(c)(2)A. Please demonstrate hardship with the following:

<ul> <li>i.) Explain how the variance requested stems from a condition that is UNIQUE TO THE PROPERTY AT ISSUE and not ordinarily found in the same zone or district. (i.e., topographical or geological limitations; unique structure of original building, etc.)</li> </ul>
<ul> <li>ii.) Explain how the granting of the variance will not have any material adverse effect on the rights of adjacent property owners or residents.</li> </ul>
I have proactively taken measures to ensure that there will be no adverse effects whatsoever on the rights or enjoyment of adjacent property by providing the visual and sound deadening use of both sandstone blocks, earth and landscaping. Additionally, I have located
and will install additional sound deadening materials as attached if necessary to ensure that the sound of the generator is below the sound
ordnance and substantially quieter than the air conditioners that are already in the same area as the generator will be installed.
iii.) Explain how the granting of the variance will not have any material adverse effect on the public health, safety or general welfare of the City of Rocky River.
The installation of a backup power generator on the side of the house in an area that is visually and audibly unnoticeable from the property line in no way would have any adverse effect on public health, safety or the general welfare of the City of Rocky River. In fact, the
installation will aid in further protecting the structure against the possibility of freezing temperatures from flooding the house with water in
the winters and will allow for the continuation of security and fire protection in the event of extended power outages. Which in the
prevention of those events would benefit the health, safety and general welfare of the neighborhood and thus the City.

iv.) Explain how the variance will be consistent with the general spirit and intent of the Code.
The general intent of the code is to ensure that noise from a healton concerts will not it to find the code is to ensure that noise from a healton concerts will not it to find the code is to ensure that noise from a healton concerts will not it to find the code is to ensure that noise from a healton concerts will not it to find the code is to ensure that noise from a healton concerts will not it to find the code is to ensure that noise from a healton concerts will not it to find the code is to ensure that noise from a healton concerts will not it to find the code is to ensure that noise from a healton concerts will not it to find the code is to ensure that noise from a healton concerts will not it to find the code is to ensure that noise from a healton concerts will not it to find the code is to ensure that noise from a healton concerts will not it to find the code is to ensure that noise from a healton concerts will not it to find the code is to ensure
The general intent of the code is to ensure that noise from a backup generator will not interfere with adjoining property owners or the neighborhood as a whole. I am prepared to utilize any means necessary to make sure the generator is as quiet as the code intends for adjoining properties. Included in this application are specifications from the generator itself, data on calculations on sound over distant and additional sound dead to the the code in the specifications from the generator itself, data on calculations on sound over distant
and additional sound deadening that I will install if required to meet the noise ordinance, which would ultimately is the intent of the C
v.) Explain how the variance sought is the minimum that will afford relief to the applicant.
This board has granted previous variances for generators in similar locations as that sought in this request including distance from pro
the swith the added specification that the building department must come out and test the sound levels at the property line to verify the
installation is within the requirements of the noise ordinance and to require additional sound mitigation to limit the sound as required.
only seeking the same requirements to be imposed in this instance to be consistent with the City's variance requests
R.R.C.O. Chapter 1133.17(c)(2)B. If applicable, explain what further evidence you would like the Board of Appeals to consider, as follows:
i.) Whether the property cannot be put to any economically viable use under any of the permitted uses in the zoning district in which the property is located.
ii.) Whether, and to the extent to which (if applicable), the hardship condition is not created by actions of the applicant.
he location of the power main and the existing gas service on the side of the house where the
roposed installation will occur has been in place since the house was erected in 1928. Placing ne backup generator near the existing utilities is the easiest and safest location for the generator as placing it elsewhere on the property will both require extensive work to move utilities and would increase the interfere with the enjoyment and use of the back yard spaces
everal adjacent property owners.

PLEASE NOTE: A separate Permit Application and fee will be due prior to issuance of the Building Permit. NO CONSTRUCTION IS TO BEGIN until the Building Permit has been issued.

To calculate the sound level of a backup generator at a different distance, we use the inverse square law for sound intensity. Sound intensity decreases with the square of the distance from the source. The formula for sound level change due to distance is:

 $L2 = L1 + 20 \cdot \log[f_0] 10(d1d2) L_2 = L_1 + 20 \cdot \log[f_0] 10(d1d2)$ 

### Where:

- L1 L1 L1 is the sound level at distance d1 d\_1 d1
- L2 L 2 L2 is the sound level at distance d2 d 2 d2
- d1 d 1 d1 and d2 d 2 d2 are the initial and new distances, respectively

### Given:

- L1=64 dB L 1 = 64, \text{dB} L1=64 dB at  $d1=24 \text{ feet } d_1 = 24 \text{ }$ , \text{feet} d1=24 feet
- d2=4 feet d2=4, \text{feet} d2=4 feet

Step 1: Calculate the distance ratio and its logarithm:  $d1d2=244=6 \frac{d_1}{d_2} = \frac{24}{4} = 6 \frac{1}{4} = 6 \frac{1}{4$ 

Step 2: Compute the change in sound level:  $20 \cdot \log[10] 10(6) \approx 20 \cdot 0.7782 = 15.564 \, dB \, 20 \cdot cdot \, \log_{10}(6) \approx 20 \cdot 0.7782 = 15.564 \, dB \, 20 \cdot cdot \, \log_{10}(6) \approx 20 \cdot 0.7782 = 15.564 \, dB$ 

Step 3: Add the change to the original sound level: L2=64+15.564=79.564 dB  $L_2=64+15.564=79.564$  \ \text{dB}  $L_2=64+15.564=79.564$ dB

Rounding to one decimal place, the sound level at 4 feet is approximately 79.6 dB.

To calculate the sound level of the backup generator at 7.8 feet, we use the inverse square law for sound intensity, as before. The formula is:

$$L_2 = L_1 + 20 \cdot \log_{10}(\frac{d_1}{d_2})$$

### Where

- $L_1 = 64$  dBat  $d_1 = 24$  feet(given)
- $d_2 = 7.8$  feet

Step 1: Calculate the distance ratio and its logarithm:  $\frac{d_1}{d_2} = \frac{24}{7.8} \approx 3.0769 \log_{10}(3.0769) \approx 0.4882$ 

Step 2: Compute the change in sound level:  $20 \cdot \log_{10}(3.0769) \approx 20 \cdot 0.4882 = 9.764 \, dB$ 

Step 3: Add the change to the original sound level:  $L_2 = 64 + 9.764 = 73.764 \, dB$ 

Rounding to one decimal place, the sound level at 7.8 feet is approximately 73.8 dB.

Note: This assumes free-field conditions (no reflections or obstacles) and a point source. Real-world factors like terrain or generator design may slightly affect the result.

Sandstone blocks can help diminish noise from a generator to some extent, but their effectiveness depends on several factors. Sandstone is a relatively dense and porous material, which can absorb and dampen sound to a degree, particularly higher-frequency noises.

### ### Key Considerations:

- 1. \*\*Sound Absorption vs. Sound Blocking\*\*:
- Sandstone's porous nature allows it to absorb some sound energy, reducing echo and high-pitched noise.
- However, for significant noise reduction, especially for low-frequency sounds, sandstone alone may not be sufficient. It's better at absorbing sound compared to denser materials like concrete or brick.

### 2. \*\*Thickness and Construction\*\*:

- Thicker sandstone blocks or walls will provide better noise reduction than thin ones. A solid, well-constructed wall with minimal gaps is key.
- To maximize effectiveness, the blocks should be tightly fitted, with no air gaps, as sound can leak through even small openings.

### 3. \*\*Generator Noise Characteristics\*\*:

- Generators typically produce noise in the range of 60–100 decibels (dB), depending on the model and load. Low-frequency hums are harder to mitigate, while high-frequency components (like engine rattle) are more easily absorbed by sandstone.
  - For context, a 10 dB reduction makes noise seem about half as loud to the human ear.

### 4. \*\*Enclosure Design\*\*:

- Building a full enclosure or partial barrier around the generator with sandstone blocks can help. Ensure the enclosure is sealed as much as possible, but leave adequate ventilation to prevent overheating.
- Adding sound-absorbing materials (like acoustic foam or mass-loaded vinyl) inside the enclosure or on the sandstone surface can enhance noise reduction.

### 5. \*\*Distance and Placement\*\*:

- The further the sandstone barrier is from the generator, the less effective it will be, as sound waves spread out. Place the barrier close to the generator or the area you want to protect (e.g., a home or outdoor space).
- Line-of-sight blocking is important—sound travels in straight lines, so a tall and wide barrier works best.

### 6. \*\*Limitations\*\*:

- Sandstone alone may not reduce noise to an acceptable level for very loud generators or sensitive environments. Combining sandstone with other materials, like concrete, wood, or specialized acoustic panels, will improve results.
- For optimal noise reduction, consider professional soundproofing solutions, such as acoustic enclosures designed specifically for generators.

### ### Practical Example:

- A sandstone wall (e.g., 6-12 inches thick) placed around a generator could reduce noise by approximately 5-15 dB, depending on construction and frequency of the sound. For comparison, a dedicated acoustic enclosure might achieve 20-30 dB reduction.
- If the generator produces 80 dB, a sandstone barrier might bring it down to 65-75 dB, which is still audible but less intrusive.

### ### Recommendations:

- \*\*Test the Setup\*\*: Measure the generator's noise level with a decibel meter (available on many smartphones) before and after installing the sandstone barrier to gauge effectiveness.
- \*\*Combine Materials\*\*: Use sandstone as part of a layered approach. For instance, line the inside of the sandstone enclosure with acoustic foam or add a concrete base to block low-frequency noise.
- \*\*Ventilation\*\*: Ensure the generator has proper airflow to avoid overheating, as sandstone enclosures can trap heat.
- \*\*Consult Local Regulations\*\*: If the generator is in a residential area, check local noise ordinances to ensure compliance.

If you're looking for a more precise solution, could you provide details like the generator's noise level (in dB), the distance to the area you want to quiet, or the size of the sandstone blocks you're considering? This would help me tailor the advice further. Alternatively, I can search for specific studies or products related to generator noise reduction if you'd like.

With a 26kW Briggs & Stratton generator producing 63 dB at 23 feet (7 meters) and placed on a rubber mat, a 12-inch-thick sandstone block enclosure can further reduce the noise, but let's analyze the specifics to estimate the effectiveness and provide practical recommendations.

### **Key Points**

### **Noise Level Context:**

63 dB at 23 feet is relatively quiet for a 26kW generator, comparable to a normal conversation or light traffic. This suggests the generator may already have some built-in noise reduction (e.g., a muffler or partial enclosure) or is operating at a low load.

The rubber mat will help reduce vibration-induced noise transmitted through the ground, particularly low-frequency hums, which complements the sandstone's sound-blocking capabilities.

### Sandstone's Noise Reduction:

A 12-inch-thick sandstone wall is substantial and can reduce noise by approximately 10-20 dB, depending on construction quality and sound frequency.

High-frequency noise (e.g., exhaust or mechanical sounds, 500 Hz and above): Sandstone's porosity absorbs these well, potentially reducing them by 15-20 dB.

Low-frequency noise (e.g., engine hum, 50-200 Hz): Sandstone is less effective here, likely reducing noise by 10-15 dB, as low frequencies penetrate denser materials more easily.

Assuming a well-sealed enclosure, you could expect the noise to drop from 63 dB to 43-53 dB at 23 feet. A 10 dB reduction sounds about half as loud to the human ear, so this would be a noticeable improvement, bringing the noise to the level of a quiet office or light background hum.

### **Rubber Mat Benefits:**

The rubber mat will dampen vibrations, reducing low-frequency noise transmitted through the ground or structure. This is particularly helpful for nearby buildings or surfaces that could amplify vibrations. It won't directly reduce airborne noise (the 63 dB measured), but it minimizes secondary noise sources, making the sandstone enclosure's job easier.

**Practical Considerations** 

**Enclosure Design:** 

Ensure the enclosure is tall and wide enough to block the line of sight to the area you want to protect (e.g., your home or neighbor's property).

Placement:

Position the enclosure as close to the generator as possible to capture noise before it spreads, but maintain enough space for ventilation and maintenance access (e.g., 2-3 feet around the generator).

Direct the generator's exhaust away from sensitive areas to minimize noise transmission.

Limitations:

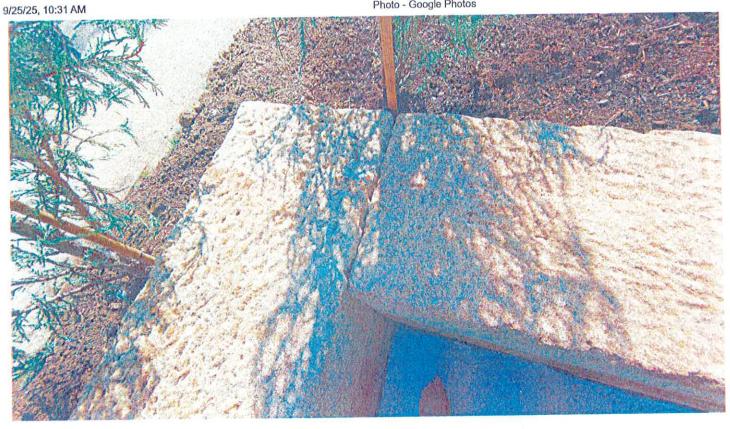
While the sandstone and rubber mat will significantly reduce noise, low-frequency sounds may still be audible, especially in very quiet environments (e.g., rural areas at night).

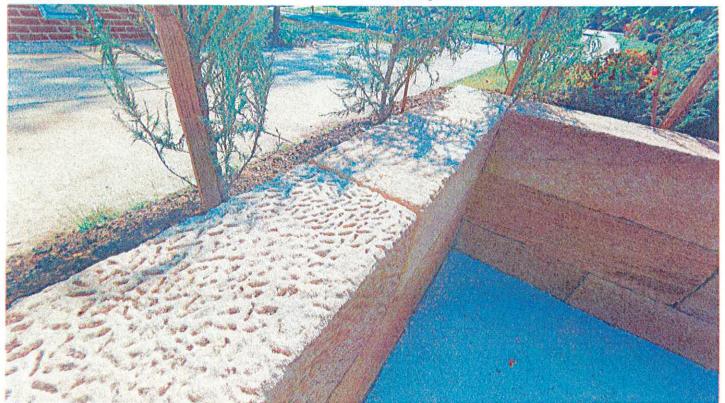
**Estimated Outcome** 

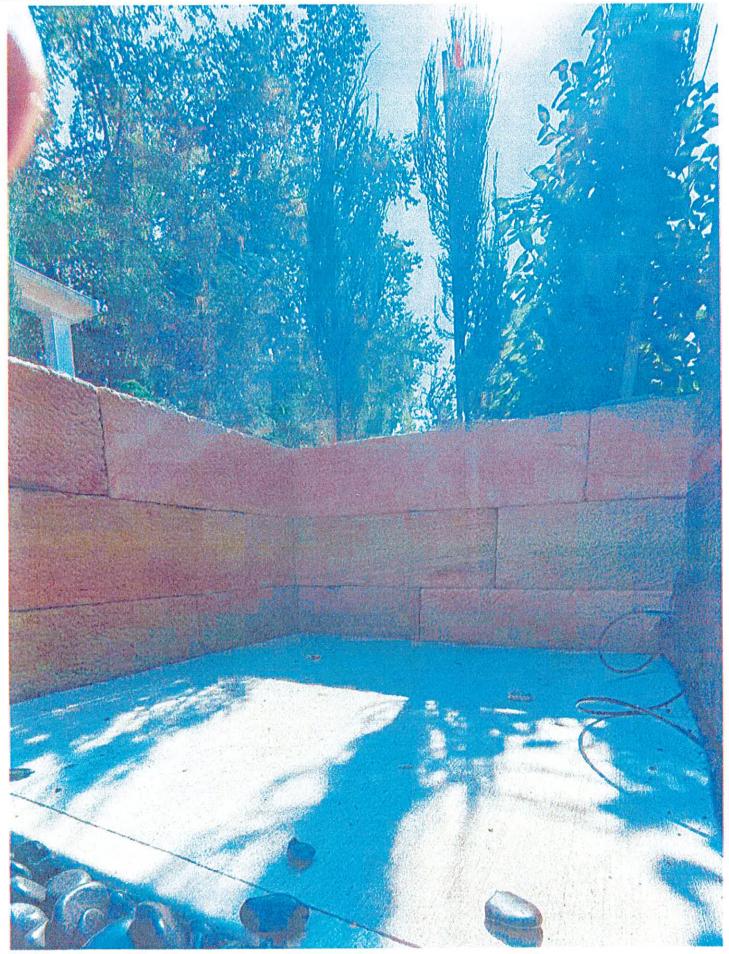
Starting at 63 dB at 23 feet, a 12-inch sandstone enclosure with a rubber mat could reduce noise to 43-53 dB at the same distance:

43 dB: Comparable to a quiet library or soft whisper—likely achievable for high-frequency components with a well-sealed enclosure.

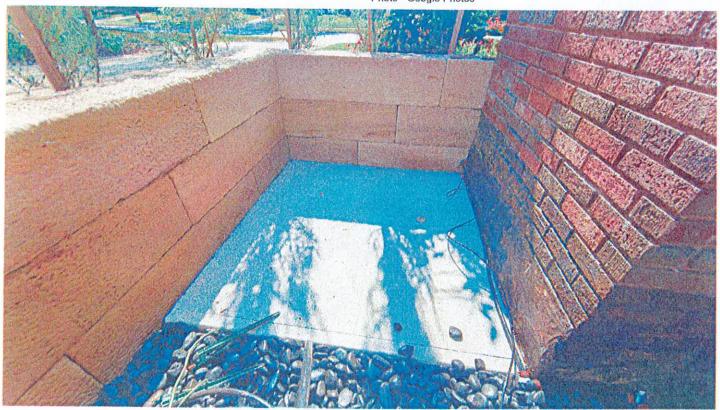
53 dB: Similar to light office noise—more likely for low-frequency hums, which are harder to block. The rubber mat will further reduce ground-transmitted vibrations, potentially shaving off an additional 1–3 dB of low-frequency noise perceived in nearby structures.

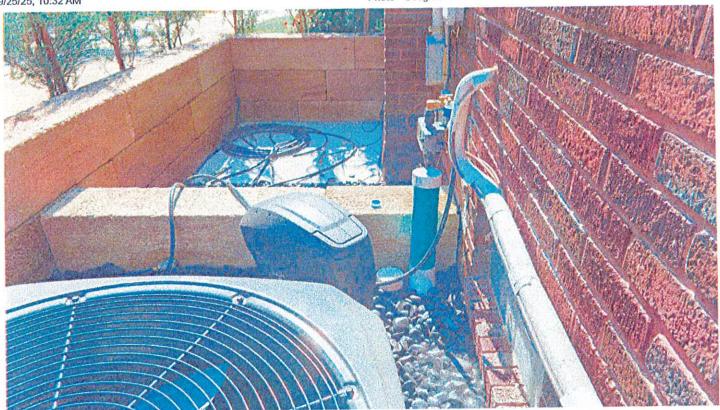


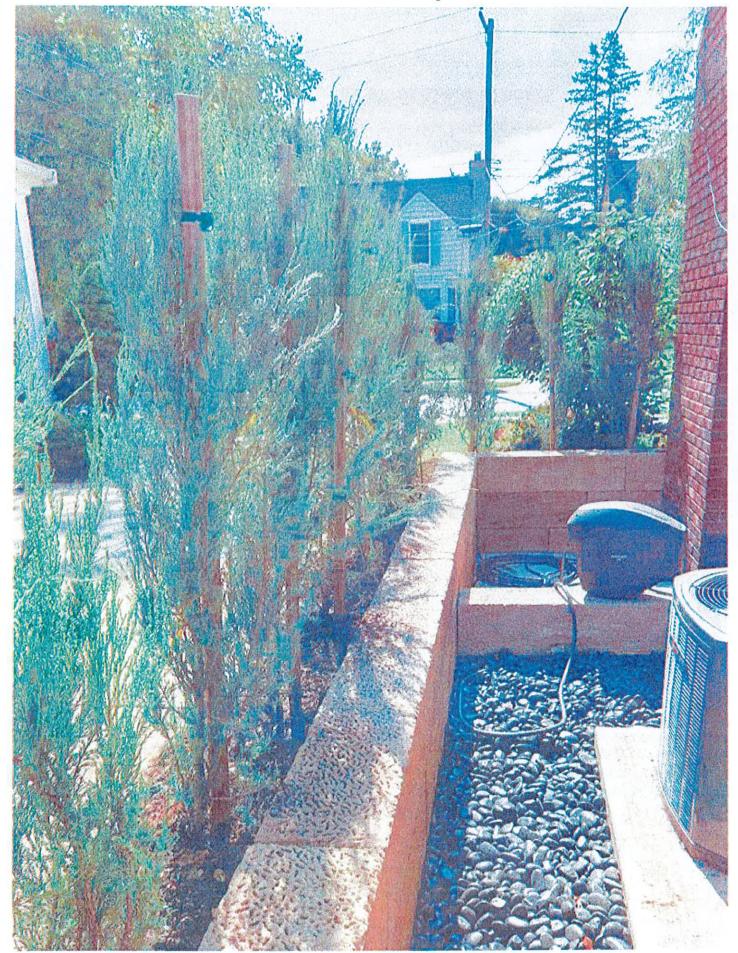




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Standby Generators



### PowerProtect\* 26kW' Standby Generator

The most powerful air-cooled standby generator on the market.

Power everything with Briggs & Stratton\* PowerProtect 26kW Home Standby Generator. The 26kW generator supplies enough power for a whole house, even heavy loads like your air conditioner. That means you won't have to sacrifice anything when the power goes out. Our NGMax\*\* technology provides more power on natural gas, giving you more power for your money. And with the longest and most comprehensive standard warranty in the industry, you'll enjoy years of wony-free performance.

Live life uninterruped and make power outages a thing of your past.

PowerProtect Home Standby Generators offer protection from power outages, increase the value of your home, and can even reduce home insurance premiums — it's an investment that keeps on giving.

Welcome to the future of home backup power solutions.





### for superior power and performance

When choosing a standby generator, check the specifications closely. Only Briggs & Stratton PowerProtect generators feature NGMax<sup>™</sup> technology, delivering up to 13% more power on natural gas than the competition. For homes with natural gas, Briggs & Stratton is the ideal choice.



Learn More

energy.briggsandstratton.com/powerprotect



### Highest Rated Power Output on Natural Gaso

Engineered with NGMax for superior power and performance with convenient hookups for both liquid propane and natural gas.



### Corrosion Protection

Reinforced, corrosion-resistant aluminum enclosures and bases with Dura-Zen™ coating for a long-lasting attractive appearance.



### Vanguard® Commercial-Grade Engine

Designed for reliable, continuous performance from the engine experts at Briggs & Stratton.



### Eco-Cise" Weekly Test Mode

Our short 16-second weekly test mode ensures your generator is in top operating condition while reducing noise and fuel consumption.



### Most Comprehensive Warranty in the Industry<sup>2</sup>

No out of pocket costs; labor, parts, service all included. That's up to a \$849 value!



### **Superior Motor Starting**

Best motor starting in the industry<sup>3</sup> to ensure smooth operation of your large appliances during startup. More power3 than the competition.



### Flexible Installation & Maintenance

Approved for installation as close as 18" to a building4 with easy toolless panel removal for serviceability and maintenance.



### Suitable for Off-Grid use or Demand Response Programs

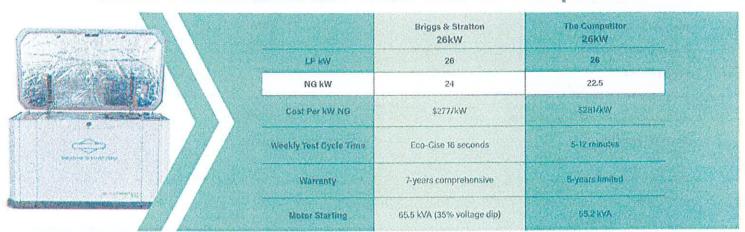
Certified for non-emergency use, partner with your utility company's demand response program to receive incentives for helping reduce the overall load on the power grid.



### In-House Call Support

Enjoy direct access to our US-based Briggs & Stratton energy experts whenever you need them.

### Better Performance and Value than the Competition



### Expertise and Quality You Can Trust.

With 115+ years of experience providing power solutions, Briggs & Stratton is a brand homeowners trust. Our products are engineered and assembled in the USA and our customers can rely on us for exceptional performance and durability. Our commitment to delivering the most powerful and reliable home standby generators in the industry ensures that you have the peace of mind you deserve when it comes to safeguarding your home's power supply. Say hello to a new era of standby energy and keep powering forward. 

The supply is a supply in the supply is a supply in the supply in the supply in the supply is a supply in the supply in the supply in the supply is a supply in the supply in the supply is a supply in the supply in the supply in the supply is a supply in the s

pared to other leading home standby generators of similar power output BS1446 - 06-07-24

BRIGGS & STRATTON POST OFFICE BOX 702 MILWAUKEE, WI 53201 USA

This generator is rated in accordance with UL (Underwriters Laboratories) 2200 (stationary engine generator assemblies) and CSA (Canadian

Standards Association) standard C22.2 No. 100-14 (motor and generators).

See operator's manual or energy-briggsandstratton.com for complete warranty details.

<sup>2</sup> In its named class.

The installation manual contains specific instructions related to generator placement in addition to NFPA 37, including the requirement that carbon nonoxide detectors be installed and maintained in your home or business

<sup>&</sup>lt;sup>4</sup> Of global and U.S. parts



Standby Generators



### RESIDENTIAL

Standby Generators



### **SPECIFICATIONS**

VERVIEW	
rand	Briggs & Stratton*
series Name	Power Protect™
fodel Name	PP26
lodel Number	040806
tated AC Voltage (Volts)	120 / 240
requency (Hz)	60
Generator Breaker (Amps)	125
Operating Ambient Temperature (°C / °F)	-28 - 40 / -20 - 104
Running Amperage, Standby (LP / NG) (Amps)	108.3 / 100
Running Power, Standby (LP / NG) (kW)	26' / 24
Power Factor	1.0
Programmable Exercise Cycle	16 sec (default) - 20 mins
Engin•	
ingine Brand/Manufacturer	Vanguard*
Model Type	M61
Aspiration	Naturally Aspirated
Speed (RPM)	3600
Displacement (ci/cc)	61 / 993
Compression Ratio	9.7:1
Governor Type	Electronic

26

kW

### POWERPROTECT

Standby Generators



Engine	
Bore & Stroke (mm / in)	85.5 x 86.5 / 3.37 x 3.41
Cylinder Block	Aluminum with Cast Iron Sleeve
Valve Arrangement	ОНУ
Engine Cylinder Configuration	V
Number of Cylinders	2
Start Type	Automatic
Frequency Regulation Steady State, No Load to Full Load (%)	+/- 1.0
Air Filter Type	Dry
Low Oil Pressure Switch	Yes
Engine Oil Heater	Optional
Rated Temperature (°C / °F)	25 / 77
Sound Rating <sup>a</sup>	The second secon
Low Idle Mode Sound dB(A)	63
Normal Operating Sound* dB(A)	65
Lubrication System	
Турө	Full Pressure
Oil Capacity (oz / L)	78 / 2.31
Oil Filter (Quantity / Type)	1 / Cartridge
Oil Brand	Schaeffer
Recommended Oil	5W30 Full Synthetic
Electrical System	
Ignition System	Variable Timing
Battery Quantity	1
Battery Voltage (VDC)	12
Battery CCA (Amps)	540
Battery Grouping Size	26 or 51
Starter Motor Voltage (VDC)	12
Fual System	
Fuel Type	NG / LPV
Fuel Supply Line inlet	3/4" NPT
Recommended Fuel, Lower Heating Value Minimum (MJ/m² / BTU/ft²)	NG: 34,3 / 904 LPV: 871 / 2338
Fuel Supply Pressure (mbar / in H2O)	NG: 9-17 / 3.5-7 LPV: 28-34 / 11-14



Standby Generators



ruel Consumption*	
lo Load, NG (BTU/hr)	122,000
No Load, NG (ft³/hr)	122
laif Load, NG (BTU/hr)	206,000
ialf Load, NG (ft³/hr)	206
full Load, NG (BTU/hr)	323,000
full Load, NG (ft³/hr)	323
No Load, LP (BTU/hr)	123,000
No Load, LP (ft³/hr)	49
No Load, LP (gal/hr)	1.40
Half Load, LP (BTU/hr)	235,000
Half Load, LP (ft³/hr)	94
Half Load, LP (gal/hr)	2.60
Full Load, LP (BTU/hr)	427,000
Full Load, LP (ft³/hr)	171
Full Load, LP (gal/hr)	4.70
Alternator Specifications	
Alternator Type	Synchronous, Self-Excited, Rotating Field
Alternator Manufacturer	Briggs & Stratton
Frequency (Hz)	60
Phase	1
Insulation Rating (Class)	H
Designed Temperature Rise (°C)	125
Bearing (Quantity / Type)	1 / Sealed
Number of Poles	2
Voltage Regulator	Brushed / Electronic
Motor Starting Capability (kVA)	65.5 (35% Voltage Dip)
Total Harmonic Distortion (THD), NL to FL (%)	< 5
Controls/Instrumentation	
Controller	GC-1032
Charger	Stand Alone
Starting	AMF or 2-wire
LED Digital Display	Yes
Alternator Frequency	Yes
Real Time Clock	Yes
Engine Hour Counter	Yes
Engine Runtime Scheduler	Yes

26 kw

### POWERPROTECT

Standby Generators



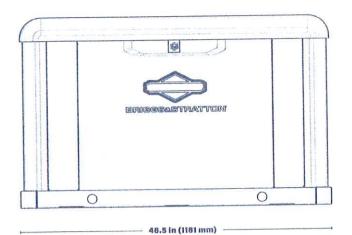
Controls/Instrumentation	
Low Oil Pressure Shutdown	Yes
High Temperature Shutdown	Yes
Fault Code Display	Yes
Other Features	
Battery Rack and Cables	Yes
Fuel Solenoid Valve	Yes
Integral Vibration Isolation	Yes
Oil Drain Extension	Yes
Operation and Installation Manual(s)	Yes
Enclosure	Aluminum
Enclosure Wind Speed Rating (mph)	186
Accessories	
Maintenance Kit	6872
Oil Warmer	6840
Fuel Regulator Warmer	6845
Surge Protector	6631
UPS	6581
InfoHub™ Universal - Celiular	6574
Limited Warranty <sup>s</sup>	Life of the second of the second
Warranty: Generator, Domestic & Canada (Parts / Labor / Travel) — Years	7
Warranty: Enclosure, Surface Rust and Corrosion (Parts / Labor / Travel) — Years	1
Warranty: Enclosure, Rust Through Parts / Labor / Travel) — Years	3
Warranty: Non-Emergency (Parts / Labor Travel) — Years	7yr or 1000 hr
Certifications 4	
JL.	Yes
UL.	Yes .
CE	No
Wassachusetts Plumbers and Gasfitters Listing	Yes

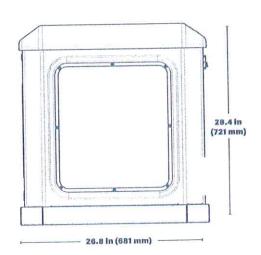


### Standby Generators



Assembled Dimensions (Length x Width x Height) (in / mm)	46.5 x 26.8 x 28.4 / 1181 x 681 x 721
Assembled Weight (lbs / kg)	540 / 245
ackaged Dimensions Length x Width x Height) (in / mm)	48.8 x 30.5 x 50.5 / 1240 x 775 x 1283
Packaged Weight (lbs / kg)	625 / 286
Outline and Pad Layout Drawing	80104089









<sup>&</sup>lt;sup>1</sup>This generator is rated in accordance with UL (Underwriters Laboratories) 2200 (stationary engine generator assemblies) and CSA (Canadian Standards Association) standard C22.2 No. 100-14 (motor and generators).

<sup>2</sup> Per ISO 3744. Sound level measurement at other locations around generator may differ depending on installation, based on lowest microphone at 7m. Normal operation based on average household usage,

<sup>&</sup>lt;sup>3</sup> Fuel consumption rates are estimated based on normal operating conditions. Generator operation may be greatly affected by elevation and the cycling operation of multiple electrical appliances — fuel flow rates may vary depending on these factors.

See operator's manual or energy briggs and stratton.com for complete warranty details.

BRIGGS&STRATTON ENERGY SOLUTIONS



## **Briggs & Stratton?** Why Choose

## Home Standby Generators

Our products are engineered and assembled in the USt, and our customers can With 115+ years of experience providing power solutions, Briggs & Stratton is a leading energy technology company with a brand homeowners trust. rely on us for exceptional performance and durability.

generators on the market ensures that you have the peace of mind you deserve when it comes to safeguarding your home's power supply. Say hello to a new Our commitment to delivering the most powerful and reliable home standby era of standby energy and keep powering forward.



Power Experts



### We've Got Your Back

### In-House Call Support



## Warranty

our entire PowerProtect" lineup. This is the We are covering you for 7 years on parts labor, and travel. This warranty is offered costs charged by other brands

## 

deliver the perfect level of performance Choose from a range of models to and confidence.

There's not a one-size-fits-all standby generator solution. Briggs & Stratton gives you options so you can find the right generator for the level of power you need.



# Experience the Difference: Benefits of our Generators



### Most Power Output on Natural Gas<sup>3</sup>

superior power and performance. Engineered with NGMax" for

Easy Installation &

Maintenance



### Suitable for Off-Grid or Demand Response Programs

response program, which rewards you for helping Our 18kW, 22kW, and 26kW models are designed for both emergency and non-emergency use. partner with your utility company's demand Non-emergency cartification allows you to reduce the overall load on the power grid.



panels designed for easier installs and maintenance including oil & fitter changes.

to a building", with quick-release, tooless Approved for installation as close as 18"

### Corrosion Protection

Reinforced, corrosion-resistant aluminum enclosures and bases with Dura-Zen" coating protect our generators.



Best motor starting in the industry to ensure

Superior Motor Starting

smooth operation of your large appliances during startup. Up to 68% more motor

starting power than the competition.

### Eco-Cise" Test Mode

Short 16-second weekly test made reduces noise and fuel consumption, while ensuring your generator is ready for a power outage.



## Commercial-Grade Vanguard® Engine

We understand that when it comes to your home's energy needs, you want nothing but the best. That's why we use the trusted Briggs & Stratton\* Vanguard Engine in all of our gener rcial-grade power right to your doorstep. But don't let its commercial engine intimidate you; it's a testament to the quality we stand for. The Vanguard Engine is not just about power; it's about reliability, efficiency, and longevity. It ensures cted, even during the toughest ou rour home is always prote

this level of performance. We believe that everyone deserves peace of mind when it comes to power, and that's why we've And here's the best part - you're not paying a premium for



Superior Motor Starting



💇 Tried & True for over 80 years



Talk to an expert. Scan the QR to get started today, or or leverage briggs and chatten com/powergrotect.

## 

## The most powerful line of Home Standby Generators on the market.

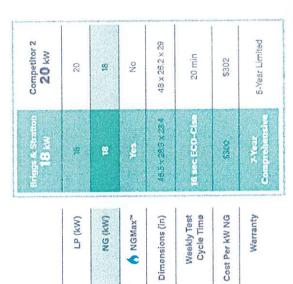
When choosing a standby generator, check the specifications closely. Only Briggs & Stratton PowerProtect generators feature NGMax\* technology, delivering up to 13% more power on natural gas than the competition. For homes with natural gas, Briggs & Stratton is the ideal choice.



Our NGMax technology provides more power and performance resulting in the most powerful line of home standby contraction will NG.



## Where We Win.



Briggs & Stratton 13 kW

13 LP (KW) 11.5 NG (KW)

● NGMBX

CATHER THROUGH CONTROL OF THE PARTY OF THE P	Вліддз & Stratton <b>26</b> км	99	*	ş	466×268×284	16 sec ECO. Clsq	\$277	7-Year Comprehensive
100	Competitor 1 26 kW	26	22.5	No	48 × 25 × 29	5 – 12 min	\$280	5-Year Limited
	Competitor 1	24	Z	No	48×25×29	5 – 12 min	\$278	5-Year Limited
Name and Address of the Owner, where the Person of the Owner, where the Owner, which is	Briggs & Stratton 22 kW	22	ä	, je	465 × 26.8 × 26.4	16 sec ECO-Cise	\$267	7-Year Comprehensive
	Competitor 1 22 kw	22	19.5	No	48 × 25 × 29	5 – 12 min	\$280	5-Year Limited
0.16	o to the owner of			ORDER AND ST	internal military	a your full olders as an	tionical Ministry a	augment Arthur for





### PRODUCT PERFORMANCE & ACCESSORIES

**ZombieBox** is a **portable**, **weatherproof**, **noise reducing enclosure** for portable and standby generators, compressors, industrial equipment, electronic, medical and laboratory equipment. Its unique universal design allows anyone with this type of equipment (home owners, campers, tailgaters, contractors, food trucks, cabins, businesses and military or governments) to reduce the decibel intensity of portable generators and other machinery without inhibiting airflow or the natural cooling properties.

Designed to be portable and self-supporting, these innovative appliances can be assembled on location, without tools, in literally **minutes!** The ZombieBox can also be mounted to a rigid base for static and permanent backup generator applications. Built-in ventilation and noise control systems manage heat build-up and exhaust gases for complete **noise reduction** and total **protection** from the elements...including EMP's ... or the resulting apocalypse.



<sup>\*</sup> ALL materials and electrical components meet **NFPA** and **ASTM** certification requirements from each respective manufacturer - ZombieBox products and assemblies do not require or hold separate material safety certificates or listings.

### SIZES AND SPECIFICATIONS:

There are 2 styles of enclosures - Portable and Standby:

- For PORTABLE generators choose from the Medium, Large or Extra Large.
- · For Standby generators: Choose the STANDBY.

The enclosures fit MOST common portable and stationary generators regardless of wattage, make or model. A detailed chart of the inside and outside dimensions is below.

NOTE: For proper cooling & ventilation - portable generators over 10KW, or equipment with multiple cylinders, need the Extra Large enclosure.

	Insid	<mark>de</mark> Dimens	ions	<b>Outside</b> Dimensions		
Size	Length	Width	Height	Length	Width	Height
Medium	36	30	32	38	38	44
Large	42	36	38	44	44	50
X-Large	57	40	44	60	48	56
Standby	56	36	34	68	40	40

### PERFORMANCE & ACCESSORIES:

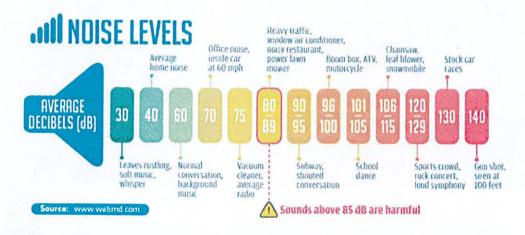
ZombieBoxes are available in many styles and sizes. All of the styles and sizes will reduce noise by about half.

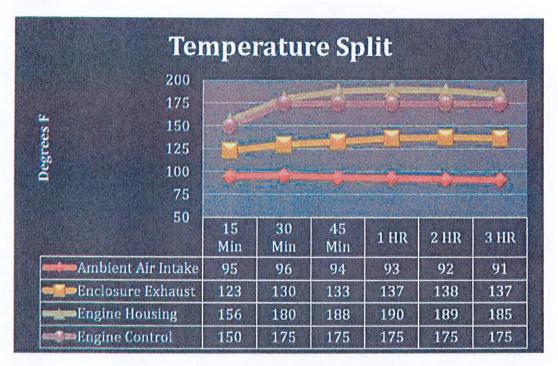
Actual results vary, but on average, you can expect between 50% & 75% quieter operation.

The proprietary 'Z-Pipe' Secondary muffler and heat control accessory will help control internal temperatures while reducing noise another -3 decibels.

**ALL** of our enclosures require a **rubberized base pad** as the 'bottom' of the box. This blocks noise transmission to the ground around it and seals the box to prevent air gaps where sound and debris can exit or enter.

The color options that ZombieBox offers are the **Metal** and **'ArmorPlate'** a black rubberized industrial coating that reduces the noise by another **-2 decibels.** With all three of these options we guarantee the structure of the box against defect for 5 years!





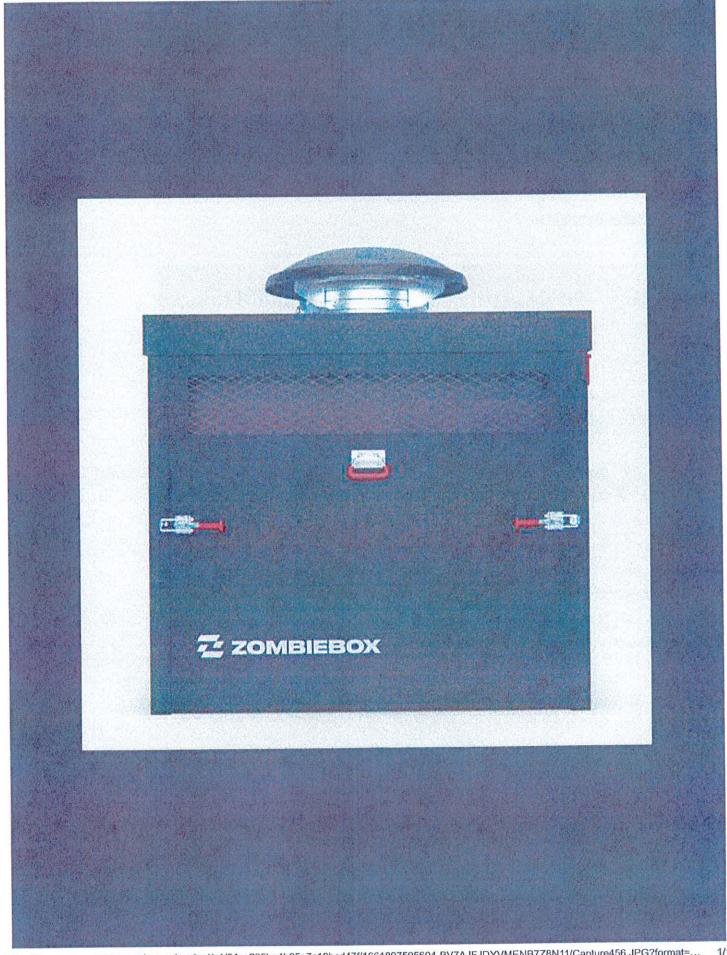
Please note: Temperatures vary widely based on many variables - Data above was tested using 50% load on 9KW gasoline portable generator

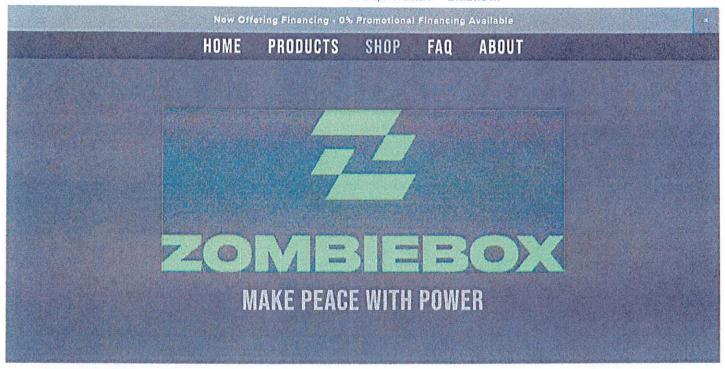
### FOR CURRENT PRICING CLICK BELOW

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ZombieBox

Sign up for the latest news





FINANCING NOW **AVAILABLE** 

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Have questions about a specific product, or want a discount?

Ask here!!

Email .....



Message requirem



SUBMIT





















from \$2,399.00

### THE XLARGE PACKAGE DEAL INCLUDES:

- (1) Extra Large Size enclosure 60x48x54 LWH - With either metal, or rubberized industrial 'ArmorPlate' finish (makes it quieter)
- (1) ZPipe Secondary Exhaust System
- (1) Rubber Base Mat Acoustic isolation pad

Includes FREE upgrade to 4 Inch grommet to accommodate wider 50 amp plugs

Inside dimensions: 57x40x44 LxWxH

Lifetime support on ALL of our products - even if you're not the original owner!

All of our Boxes and Barriers are designed and hand built in Arizona, USA

US Patents: 10,084,358 - 9,641,043 -

Zombiebox is a registered trademark.

Outside dimensions: 60x48x54

Max Allowable Generator Dimensions
= 40x36x38

Max Allowable Wattage = 28kw

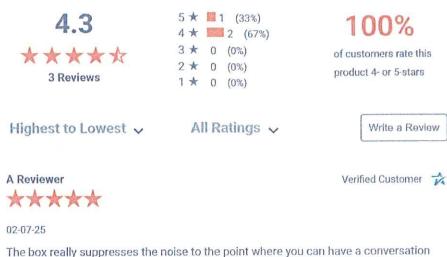
Color:
Select Color

Quantity:
1

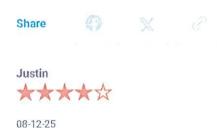
ADD TO CART

\*If you select 'Metal' color option please note: This is an "Unfinished" enclosure - This means the metal will show scuffs, scratches, and blemishes as a result of the manufacturing process. There are NO refunds for cosmetic imperfections on this product.

Select FREIGHT shipping option at checkout



The box really suppresses the noise to the point where you can have a conversation right next to the box while the machine is running



### Nice box!!

This box works very well for noise cancelling. It does a really nice job. A few things I would change on it. The top flexes side to side as your holding it open do to it size and

### Soundproof Boxes - ZombieBox

not being as rushed as it could be with a few light weight braces. With that being said the 2 small rods that hold the top up could definitely be updated. Mine have bent and barely work with the couple holes to help hold the top up. With the size of the top it's hard to get both rods in place with only having 2 hands and nearly impossible to get it

William J.

Verified Customer

01-22-25

the top needs to be a little more rigid

Share

See more reviews on Shopper Approved X

### YOU MIGHT ALSO LIKE



Storage Cover



			*i ,