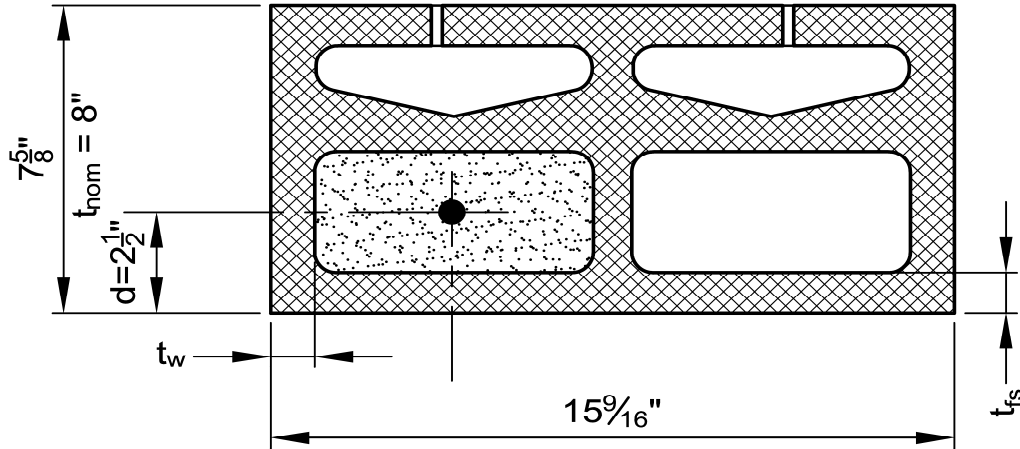


# Acoustical Masonry

BY SOUND SEAL

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**SoundBlox: 8" A-1/RF**  
7-5/8" x 7-5/8" x 15-9/16"



## Concrete Masonry Wall Properties

$t_{nom}$	8 in
Bar Size	4
$t_{fs}$	1 in
$t_w$	1 in

## Steel Reinforcement Properties

$A_s$	0.2 in <sup>2</sup>
$E_s$	29,000,000 psi
$f_y$	60,000 psi
$F_s$	24,000 psi

## Partially Grouted Masonry

Out-of-Plane Resisting Moment and Shear (Allowable Moment is based on the effective depth taken from the non-acoustic face of the masonry block)

For Effective Depth,  $d = 2.50$  in

Spacing (in)	$f'_m$ (psi)	1350		1500		2000		3000	
	$A_s'$ (in <sup>2</sup> /ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)
8	0.30	6,944	1,102	7,495	1,162	9,191	1,342	12,117	1,500
16	0.15	5,645	1,102	6,059	1,162	7,320	1,342	8,165	1,500
24	0.10	4,919	1,102	5,264	1,162	5,443	1,342	5,532	1,500
32	0.08	4,064	1,102	4,082	1,162	4,130	1,342	4,190	1,500
40	0.06	3,282	1,102	3,296	1,162	3,332	1,342	3,376	1,500
48	0.05	2,755	1,102	2,766	1,162	2,794	1,342	2,828	1,500
56	0.04	2,361	945	2,371	996	2,394	1,150	2,424	1,286
64	0.04	2,066	827	2,074	871	2,095	1,006	2,121	1,125
72	0.03	1,837	735	1,844	775	1,862	894	1,885	1,000
80	0.03	1,653	661	1,659	697	1,676	805	1,697	900
88	0.03	1,503	601	1,509	634	1,524	732	1,542	818
96	0.03	1,377	551	1,383	581	1,397	671	1,414	750

Concrete Masonry Wall Properties

$t_{nom}$  8 in  
 Bar Size 5  
 $t_{fs}$  1 in  
 $t_w$  1 in

Steel Reinforcement Properties

$A_s$  0.31 in<sup>2</sup>  
 $E_s$  29,000,000 psi  
 $f_y$  60,000 psi  
 $F_s$  24,000 psi

Partially Grouted Masonry

Out-of-Plane Resisting Moment and Shear (Allowable Moment is based on the effective depth taken from the non-acoustic face of the masonry block)

For Effective Depth,  $d = 2.50$  in

Spacing (in)	$f'_m$ (psi)	1350		1500		2000		3000	
	$A_s'$ (in <sup>2</sup> /ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)
8	0.47	7,754	1,102	8,403	1,162	10,414	1,342	13,923	1,500
16	0.23	6,448	1,102	6,953	1,162	8,487	1,342	11,107	1,500
24	0.16	5,706	1,102	6,125	1,162	7,405	1,342	8,425	1,500
32	0.12	5,184	1,102	5,553	1,162	6,286	1,342	6,394	1,500
40	0.09	4,794	1,102	5,014	1,162	5,078	1,342	5,158	1,500
48	0.08	4,193	1,102	4,213	1,162	4,263	1,342	4,325	1,500
56	0.07	3,594	945	3,611	996	3,654	1,150	3,707	1,286
64	0.06	3,145	827	3,159	871	3,197	1,006	3,244	1,125
72	0.05	2,795	735	2,808	775	2,842	894	2,884	1,000
80	0.05	2,516	661	2,528	697	2,558	805	2,595	900
88	0.04	2,287	601	2,298	634	2,325	732	2,359	818
96	0.04	2,096	551	2,106	581	2,131	671	2,163	750

Concrete Masonry Wall Properties

$t_{nom}$  8 in  
 Bar Size 6  
 $t_{fs}$  1 in  
 $t_w$  1 in

Steel Reinforcement Properties

$A_s$  0.44 in<sup>2</sup>  
 $E_s$  29,000,000 psi  
 $f_y$  60,000 psi  
 $F_s$  24,000 psi

Partially Grouted Masonry

Out-of-Plane Resisting Moment and Shear (Allowable Moment is based on the effective depth taken from the non-acoustic face of the masonry block)

For Effective Depth,  $d = 2.50$  in

Spacing (in)	$f'_m$ (psi)	1350		1500		2000		3000	
	$A_s'$ (in <sup>2</sup> /ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)
8	0.66	8,363	1,102	9,094	1,162	11,372	1,342	15,390	1,500
16	0.33	7,054	1,102	7,640	1,162	9,438	1,342	12,504	1,500
24	0.22	6,344	1,102	6,840	1,162	8,336	1,342	10,893	1,500
32	0.17	5,821	1,102	6,252	1,162	7,567	1,342	8,944	1,500
40	0.13	5,412	1,102	5,803	1,162	6,994	1,342	7,224	1,500
48	0.11	5,086	1,102	5,446	1,162	5,963	1,342	6,063	1,500
56	0.09	4,359	945	4,668	996	5,111	1,150	5,197	1,286
64	0.08	3,815	827	4,085	871	4,472	1,006	4,547	1,125
72	0.07	3,391	735	3,631	775	3,975	894	4,042	1,000
80	0.07	3,052	661	3,268	697	3,578	805	3,638	900
88	0.06	2,774	601	2,971	634	3,252	732	3,307	818
96	0.06	2,543	551	2,723	581	2,981	671	3,032	750

Concrete Masonry Wall Properties

Steel Reinforcement Properties

$t_{nom}$  8 in  
 Bar Size 7  
 $t_{fs}$  1 in  
 $t_w$  1 in

$A_s$  0.6 in<sup>2</sup>  
 $E_s$  29,000,000 psi  
 $f_y$  60,000 psi  
 $F_s$  24,000 psi

Partially Grouted Masonry

Out-of-Plane Resisting Moment and Shear (Allowable Moment is based on the effective depth taken from the non-acoustic face of the masonry block)

For Effective Depth,  $d = 2.50$  in

Spacing (in)	$f'_m$ (psi)	1350		1500		2000		3000	
	$A_s'$ (in <sup>2</sup> /ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)
8	0.90	8,860	1,102	9,663	1,162	12,182	1,342	16,672	1,500
16	0.45	7,552	1,102	8,208	1,162	10,244	1,342	13,774	1,500
24	0.30	6,874	1,102	7,443	1,162	9,180	1,342	12,117	1,500
32	0.23	6,381	1,102	6,884	1,162	8,397	1,342	10,980	1,500
40	0.18	5,982	1,102	6,430	1,162	7,797	1,342	9,719	1,500
48	0.15	5,645	1,102	6,059	1,162	7,320	1,342	8,165	1,500
56	0.13	4,839	945	5,193	996	6,274	1,150	6,998	1,286
64	0.11	4,234	827	4,544	871	5,490	1,006	6,124	1,125
72	0.10	3,763	735	4,039	775	4,880	894	5,443	1,000
80	0.09	3,387	661	3,635	697	4,392	805	4,899	900
88	0.08	3,079	601	3,305	634	3,993	732	4,454	818
96	0.08	2,823	551	3,029	581	3,660	671	4,082	750

Concrete Masonry Wall Properties

Steel Reinforcement Properties

$t_{nom}$  8 in  
 Bar Size 8  
 $t_{fs}$  1 in  
 $t_w$  1 in

$A_s$  0.79 in<sup>2</sup>  
 $E_s$  29,000,000 psi  
 $f_y$  60,000 psi  
 $F_s$  24,000 psi

Partially Grouted Masonry

Out-of-Plane Resisting Moment and Shear (Allowable Moment is based on the effective depth taken from the non-acoustic face of the masonry block)

For Effective Depth,  $d = 2.50$  in

Spacing (in)	$f'_m$ (psi)	1350		1500		2000		3000	
	$A_s'$ (in <sup>2</sup> /ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)	$M_r$ (in-lb/ft)	$V_r$ (lb/ft)
8	1.19	9,259	1,102	10,124	1,162	12,855	1,342	17,771	1,500
16	0.59	7,955	1,102	8,672	1,162	10,915	1,342	14,866	1,500
24	0.40	7,305	1,102	7,938	1,162	9,892	1,342	13,242	1,500
32	0.30	6,843	1,102	7,412	1,162	9,145	1,342	12,067	1,500
40	0.24	6,469	1,102	6,985	1,162	8,539	1,342	11,181	1,500
48	0.20	6,150	1,102	6,621	1,162	8,044	1,342	10,481	1,500
56	0.17	5,271	945	5,675	996	6,895	1,150	8,984	1,286
64	0.15	4,612	827	4,966	871	6,033	1,006	7,861	1,125
72	0.13	4,100	735	4,414	775	5,363	894	6,988	1,000
80	0.12	3,690	661	3,972	697	4,827	805	6,289	900
88	0.11	3,354	601	3,611	634	4,388	732	5,717	818
96	0.10	3,075	551	3,310	581	4,022	671	5,241	750