

Rapid Modular Silencing System

MSS



No More Noise!



The Modular way to a
Silent working environment!

Mr. Steinacker, Production Manager of Reuss-Seiffert from Schalksmühle in Germany about his experience of the Rapid MSS:

– *“The working environment noise level has been reduced from over 90 dB(A) to under 60 dB (A) after the installation of the Rapid sound cabinets.”*

The company, a manufacturer of tough-grinded construction spacers, has several central granulators from Rapid and is very satisfied with the Rapid MSS solution.



Rapid[®]
Reduce • Reuse • Recycle

Controlling NOISE with Rapid Mod

No More Noise!



The most effective way to reduce noise is to capture it at the source to prevent it from spreading into the working environment. You can reduce significantly more dB(A) in a very cost efficient way compared to for example noise absorbing panels in the ceiling.

The Rapid MSS (Modular Silencing System) is a concept that can be adapted to any noise generating source in the production plant. As it is capturing the noise at the source it can reduce as much as 10 – 20 dB(A).

Rapid's MSS main area is extra sound protection for granulators and granulator transport systems to reduce operating noise levels and enhance the health and safety regime in the workplace.



The main areas for Rapid MSS is as sound enclosure for granulators and their transport system.

An existing sound cabinet can at any time be modified using standard components. The possibility to build virtually any shape makes the system very flexible.



The Rapid MSS's main advantages:

- **Absorbs the noise**, at the source, preventing noise in the production area.
- **Effective** – lowering the noise emission by up to 10 – 20 dB(A), or even more depending on the specific circumstances.
- **Modular** – The Rapid MSS is designed as a modular concept and can therefore be added to any granulator configuration. Modular aluminium framework with corresponding noise absorbing silencing modules.
- **Flexible** – Thanks to the easy modular system, with both light weight and easy assembly the MSS can be relocated in no time if changing the production layout.
- **Standardized** – Standard solutions for all Rapid machines available.
- **Easy handling** – light weight, easy attachments – one person can easily install a standard MSS cabinet in less than two hours.

Molecular Silencing System, Rapid MSS

Understanding noise and its consequences!

Critical noise levels

What are the action levels and limit values?

These relate to the levels of exposure to noise averaged over a working day or week; and the maximum noise (peak sound pressure) to which you are exposed to in a working day.

Duration of noise exposure and the noise level determines the risk of hearing. The critical level for noise related hearing loss is set to 85 dB(A) per 8 hours daily. Individual variations are large and some persons are more likely to be affected than others. According to the equal-energy principle an increase by three dB in noise level would halve the duration. And consequently, maximum 28 seconds noise exposure at 115 dB(A). For short lasting impulse sounds the peak level, regardless of the total energy, might cause a permanent threshold shift.

The values are:

Lower exposure action values:

- daily or weekly exposure of 80 dB
- peak sound pressure of 135 dB

Exposure limit values without protection:

- daily or weekly exposure of 85 dB
- peak sound pressure of 137 dB

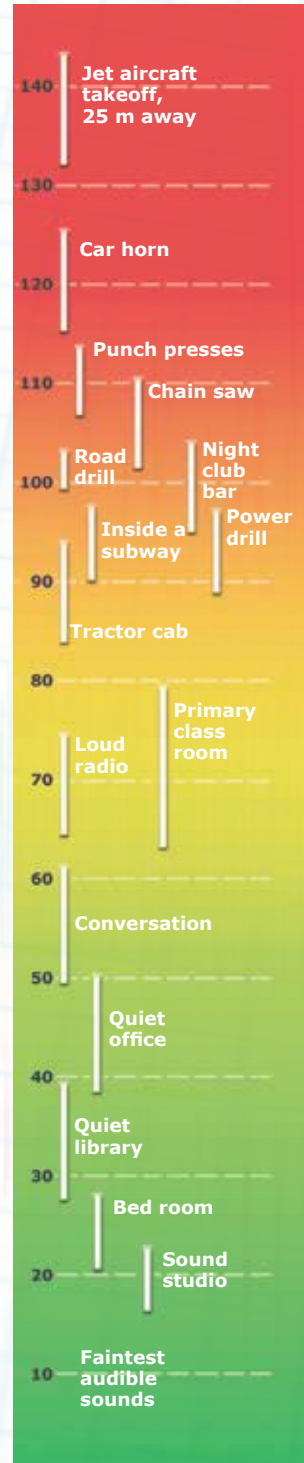
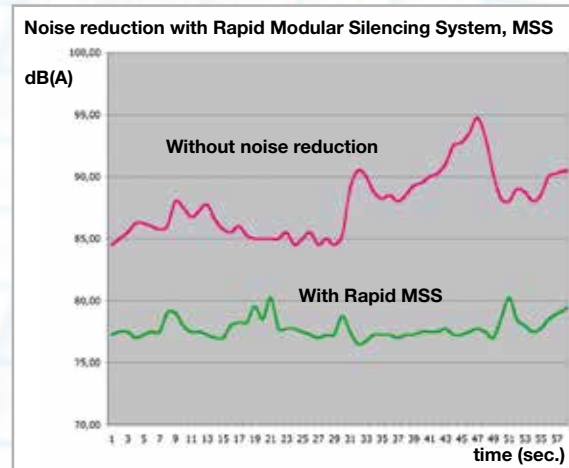
Noise exposure which must never be exceeded:

Exposure limit values:

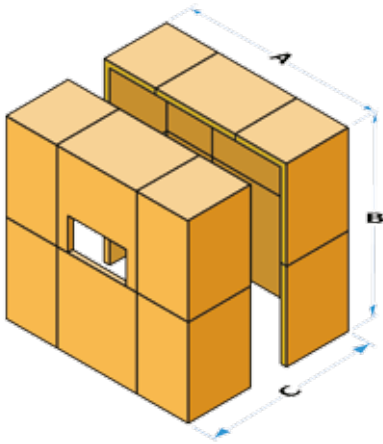
- daily or weekly exposure of 87 dB
- peak sound pressure of 140 dB

Do you know how to minimize noise?

- Stop it from spreading around – as close to the source as possible: **Contain and capture it!**
- Stop it from bouncing around: **Stop reflections!**
- Rapid MSS does both containing and absorbing!**
- The decibel scale is logarithmic, A three decibel increase in the noise level already represents a doubling of the noise loudness.
- Rapid MSS reduce noise levels by 10-20 dB(A)!









Complete Sound cabinet for granulator






Granulator model*	Art. No	A	B	C
Rapid 150-Series, 150-21	9-63206	840	1340	800
Rapid 150-Series, 150-35	9-63207	840	1340	800
Rapid 150-Series, 150-42	9-63208	840	1340	800
Rapid 200-Series, slim**	9-63200	2000	2000	1600
Rapid 200-Series, wide***	9-63201	3600	2400	2000
Rapid 300-Series, slim**	9-63200	2000	2000	1600
Rapid 300-Series, wide***	9-63201	3600	2400	2000
Rapid 400-Series, slim**	9-63202	2000	2000	1600
Rapid 400-Series, wide***	9-63203	3600	2400	2000
Rapid 500-Series, slim**	9-63204	2400	2400	2000
Rapid 500-Series, wide***	9-63205	3200	2800	2400


* Standard models **No extra space inside *** Wide enough to walk around the granulator inside the cabinet.


MSS – Frame-work components


Cross bar 	Art. No	L	Pcs
	9-62969	400	
	9-62970	800	
	9-62971	1200	
Cross bar, corner 		L	Pcs
	9-62972	400	
	9-62973	800	
	9-62974	1200	
2-way-fitting, center 	9-62975		Pcs
2-way-fitting, corner 	9-62976		Pcs
3-way-fitting, center 	9-62977		Pcs
3-way-fitting, center, open 	9-62978		Pcs


3-way-fitting, corner		Art. No 9-62979	Pcs
4-way-fitting, center		9-62980	Pcs
4-way-fitting, corner		9-62981	Pcs
5-way-fitting		9-62982	Pcs
6-way-fitting		9-62983	Pcs
Wheel, corner		9-62984	Pcs
Wheel, center		9-62985 left 9-62986 right	Pcs
Hinge		9-62987	Pcs
Handle		9-62988	Pcs
Screws, K6S M6x20, box 500 pcs, (8 screws/cross bar)		9-63181	Pcs
Panel customization kit Tailored tape Knife Mark pen		9-62989	Pcs

MSS – Sound proofing panels

Sound proofing panel Wall thickness: 55 mm	L	W	Pcs	
	9-62990	400	400	
	9-62991	400	800	
	9-62992	400	1200	
	9-62993	800	800	
	9-62994	800	1200	
	9-62995	1200	1200	

Sound proofing for pipe, straight	L	Ø	Pcs	
	9-62996	300	100	
	9-62997	1200	100	
	9-62998	300	160/200	
	9-62999	1200	160/200	

Sound proofing, pipe, bend, up to 30° 2 pcs → 45° 3 pcs → 90°	Ø	Pcs	
	9-63000	100	
	9-63001	160/200	

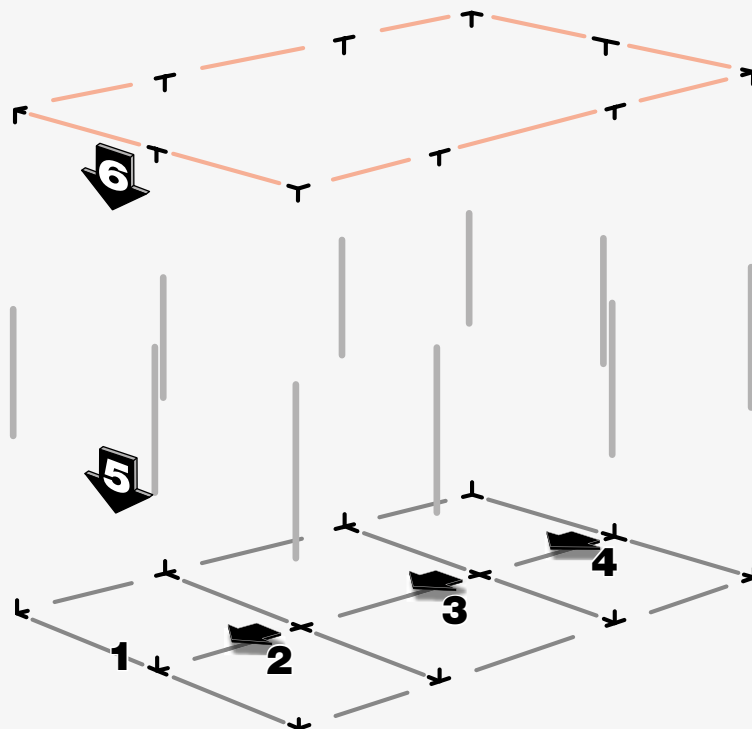
Sound proofing, pipe, conversion Ø 100 mm ↔ Ø 160/200 mm	Ø	Pcs	
	9-63002	100 ↔ 160/200	

Rapid MSS – Easy to fit

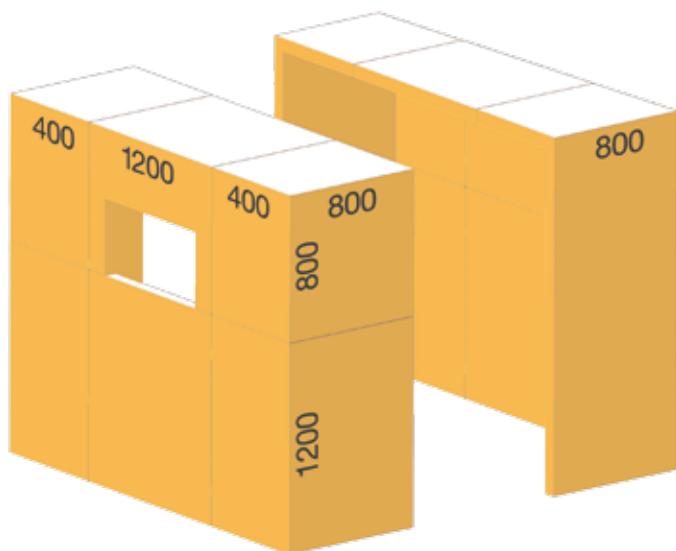


Assembly procedure guidelines

- Assemble the frame work laying flat on the floor, when completed, raise each section up. **Start with the main wall.**
- Assemble each “layer” in the frame work before fitting it together.
- Leave all screws loose until fitting is complete.
- **Flexible** – Thanks to easy modular system, with both light weight and easy assembly the MSS can be relocated in no time if changing the production layout.
- **Inlet** – With the “Panel Customization Kit” it’s easy to cut a “window” in a panel for e.g. belt conveyor etc, see right.

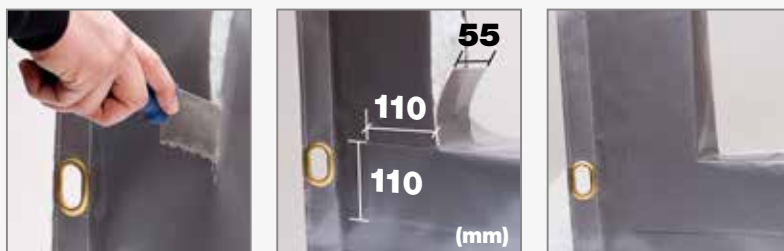


Predesigned cabinets for granulator



Article	Pcs
Sound proofing, 400x800 mm	8
Sound proofing, 400x1200 mm	4
Sound proofing, 800x800 mm	4
2-way-fitting, corner	4
3-way-fitting, center	12
3-way-fitting, corner	12
4-way-fitting, center	4
4-way-fitting, corner	8
Crossbar, 400 mm	12
Crossbar, 800 mm	20
Crossbar, 1200 mm	14
Crossbar, corner, 400 mm	4
Crossbar, corner, 800 mm	8
Crossbar, corner, 1200 mm	6
Wheel, corner	4
Wheel, right	2
Wheel, left	2
Panel customization kit	1

Panel customization kit – instructions for belt conveyor inlet-window



To make access to the MSS-enclosure, i.e. an opening for a belt conveyor, just measure and cut the opening accordingly. Then seal the plane of sections with the tailored tape.

Rapid Modular Silencing System



Part	Art.No	Pcs
Complete cabinet, Rapid 150-21	9-63206	
Complete cabinet, Rapid 150-35	9-63207	
Complete cabinet, Rapid 150-42	9-63208	
Complete cabinet, Rapid 200, slim	9-63200	
Complete cabinet, Rapid 200, wide	9-63201	
Complete cabinet, Rapid 300, slim	9-63200	
Complete cabinet, Rapid 300, wide	9-63201	
Complete cabinet, Rapid 400, slim	9-63202	
Complete cabinet, Rapid 400, wide	9-63203	
Complete cabinet, Rapid 500, slim	9-63204	
Complete cabinet, Rapid 500, wide	9-63205	
Cross bar, 400 mm	9-62969	
Cross bar, 800 mm	9-62970	
Cross bar, 1200 mm	9-62971	
Cross bar, corner, 400 mm	9-62972	
Cross bar, corner, 800 mm	9-62973	
Cross bar, corner, 1200 mm	9-62974	
2-way fitting, center	9-62975	
2-way fitting, corner	9-62976	
3-way fitting, center	9-62977	
3-way fitting, center, open profile	9-62978	
3-way fitting, corner	9-62979	
4-way fitting, center	9-62980	
4-way fitting, corner	9-62981	

Part	Art.No	Pcs
5-way fitting	9-62982	
6-way fitting	9-62983	
Wheel, corner	9-62984	
Wheel, center – left	9-62985	
Wheel, center – right	9-62986	
Hinge	9-62987	
Handle	9-62988	
Screws, K6S M6x20, box 500 pcs, 8/cross bar	9-63181	
Panel customisation kit	9-62989	
Sound proofing, 400x400 mm	9-62990	
Sound proofing, 400x800 mm	9-62991	
Sound proofing, 400x1200 mm	9-62992	
Sound proofing, 800x800 mm	9-62993	
Sound proofing, 800x1200 mm	9-62994	
Sound proofing, 1200x1200 mm	9-62995	
Sound proofing, pipe Ø100 mm, 300 mm	9-62996	
Sound proofing, pipe Ø100 mm, 1200 mm	9-62997	
Sound proofing, pipe Ø160/200 mm, 300 mm	9-62998	
Sound proofing, pipe Ø160/200 mm, 1200 mm	9-62999	
Sound proofing, pipe Ø100 mm, bend 30°	9-63000	
Sound proofing, pipe Ø160/200 mm, bend 30°	9-63001	
Sound proofing, pipe, conversion Ø100 – 160/200 mm,	9-63002	



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