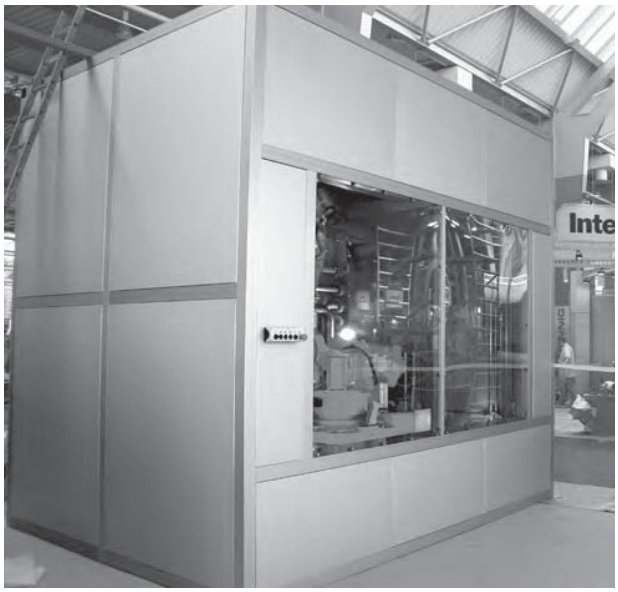
NOISE PROTECTION

EXAMPLES



NOISE PROTECTION

2033/10/EG – EUROPEAN HEALTH AND SAFETY REGULATION REGARDING NOISE

One solution for passive noise protection is to provide hearing protectors, but that effects other things such as difficult communication, unable to recognise audible warning signals and can be uncomfortable to wear. An active noise protection solution such as noise emission or guard units at the source provide a better solution for everyone. There are guidelines regulated by law for prevention of noise exposure and for employers to take appropriate actions according to the newest standards.

The new system for enclosures and noise reducing guard units were developed in cooperation with noise control specialist, Scharenberg, situated in Tarmstedt, Germany.

This new system is based on the well proven MiniTec profile system combined with 20 mm thick noise reducing mats and 34 mm thick noise reducing panels.

An excellent design makes it easy to assemble and give you easy access to the machines. If the guard unit in layout p34 is used properly you can reach a noise reduction of 25 dB(A) on a regular basis.

NOISE PROTECTION

NOISE CAUSES HEALTH PROBLEMS

Depending on the intensity and duration of noise exposure, there can be acute and long-term damages to health, capacity and general well-being to your employees.

- Psychological effects such as lapses of concentration, nervousness, irritability and aggressiveness.
- Physiological damage such as hearing disorder, high blood pressure, hypertension, cardiovascular diseases and headaches.
- Loss of efficiency and higher risk of injuries, impaired communication, incorrect decisions due to misunderstandings, higher error rate and demotivating working environment.

Because of the rising costs of occupational health and the consequential production downtimes, it is important to think about noise reduction. Improvements made to reduce noise in the working environment often increases productivity.

Key benefits of MiniTec noise reduction solutions

- efficient noise reduction
- cost-effective due to the use of the MiniTec profile system
- standard panels provide simple and assembly construction
- optimal accessibility through doors, lift gates, control windows
- easy removable walls
- optional also working with heat rejection

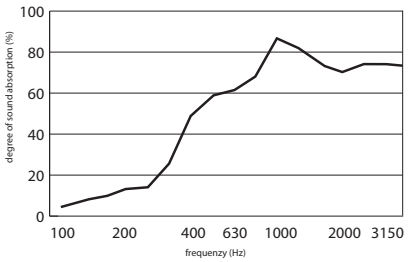
NOISE PROTECTION

COMPONENT & REMARKS

Layout "p20"

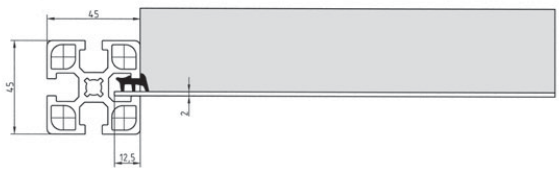
- base frame using MiniTec aluminium profiles
- panel element
- sound-absorbing panel, PU-foam 20 mm thick, black, part nr. 21.1879/0, for bonding and sealing on panel elements

Degree of sound absorption measurement (DIN-EN-ISO 103534-2)



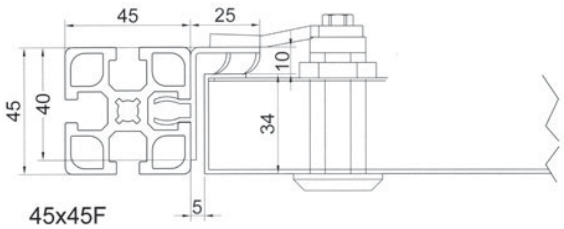
Options for panel elements

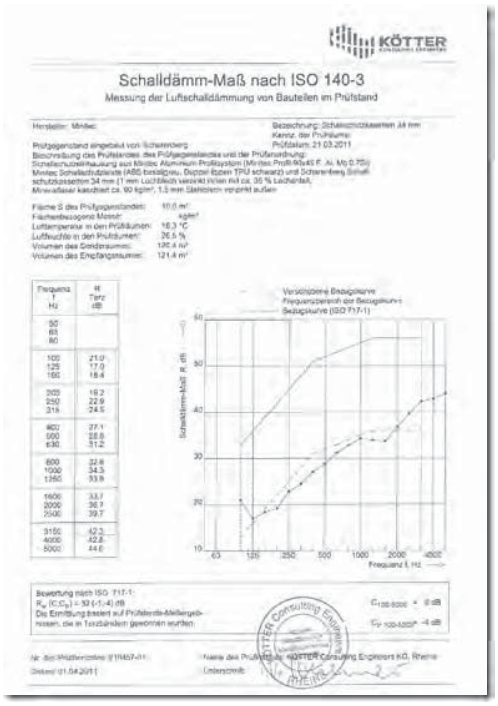
- aluminium panel 2 mm, anodized, part nr. 21.1011/0
- built-in with Insert seal 2, part nr. 22.1083/0
- steel panel 1 to 2 mm, varnished or zinc-plated, built-in with Insert seal 2, part nr. 22.1083/0
- chipboard 8 mm, double-coated white, part nr. 21.1815/2
- chipboard 8 mm, double-coated light-grey, part nr. 21.1855/0



Layout „p34"

- base frame using MiniTec aluminium profiles
- noise reduction strip, part nr. 22.1130/1
- noise reduction panel 34 mm thick
- internal side perforated plate
- filling: premium mineral wool, with glass non-woven as trickle protection, non-flammable according to DIN 4102, building material class A2
- exterior sheet panel zinc-plated optional varnished in RAL colour



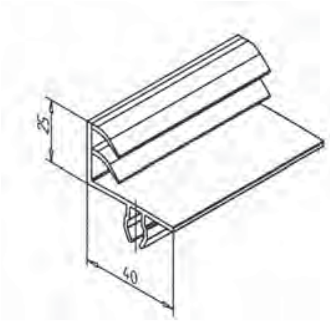


NOISE PROTECTION

COMPONENT & REMARKS

Noise reduction strip (part no. 22.1130/1)

- material: ABS grey
- with two side-fed sealing lips
- weight: 0,232 kg/m
- no tools and screws needed for attachment
- backfitting/retrofitting possible
- easy handling and easy removal
- less assembly-time
- sealed panels, door catches
- no mitre-cut necessary



Noise reduction panel " p34"

- Thickness 34 mm
- 1,5 mm steel panel zinc-plated, optional finish in RAL
- Insulation: mineral fibre, laminated, approx. 90 kg/m³
- 1,0 mm perforated plate inside, zinc-plated. approx. 35 % holes
- sound insulation certified according to ISO 140-3
- weight of panel 27 kg/m²

Layout

- panel firmly bolted together
- panel fixed with bolt lock
- door with handle

panel firmly bolted together

panel fixed with bolt lock

Options

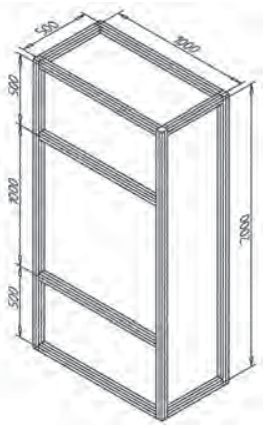
- windows, single or double
- finished according RAL
- panel sound absorber
- conduit sound absorber
- ventilator with thermostat
- sliding doors
- rain cover/shield

door with handle

NOISE PROTECTION

COMPONENT & REMARKS

EXAMPLE FOR A BASE FRAME

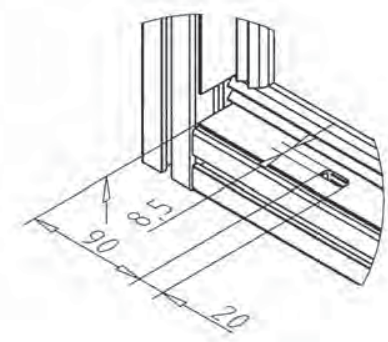


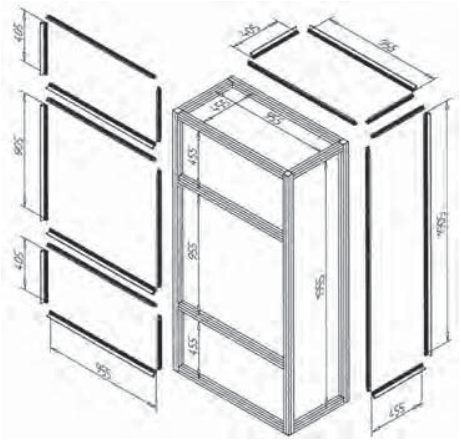
1. Construction

- Please use the standard groove centre distance N from 250 to 2000 mm for constructing the carrier framework

2. Insertion of noise reduction strip

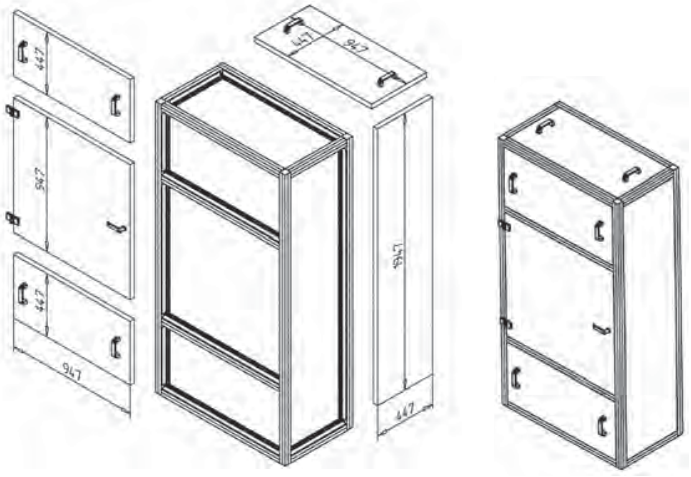
- calculation of length for noise reduction strip Horizontal N -45 mm, vertical N -95 mm
- cutting strips and inserting strips
- When using removable elements use an additional one on the bottom drill 2 long holes diameter 8,5x20, use snap bolt 25, part no 21.1758/0, put together with square-nuts





3. Insertion and fastening of the noise reduction elements

- firmly bolted elements to be fixed from the backside
- removable elements will be inserted into snap bolts from underneath, then swivel it into the base frame and secure it
- door elements and shutter to be fixed from the front



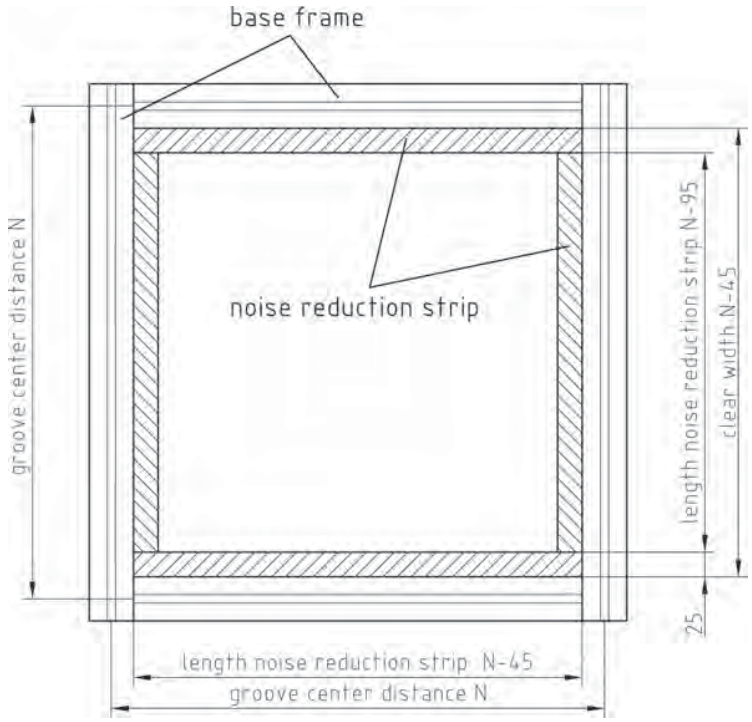
NOISE PROTECTION

COMPONENT & REMARKS

Preferential noise reduction panel sizes p34

Groove centre distance N mm	Panel size mm	Panel firmly bolted together part no.	Door part no.
250 x 250	197 x 197	56.0011/0	56.0013/0
500 x 250	447 x 197	56.0021/0	56.0023/0
1000 x 250	947 x 197	56.0031/0	56.0033/0
250 x 500	197 x 447	56.0041/0	56.0043/0
500 x 500	447 x 447	56.0051/0	56.0053/0
1000 x 500	947 x 447	56.0061/0	56.0063/0
250 x 1000	197 x 947	56.0071/0	56.0073/0
500 x 1000	447 x 947	56.0081/0	56.0083/0
1000 x 1000	947 x 947	56.0091/0	56.0093/0
250 x 2000	197 x 1947	56.0101/0	56.0103/0
500 x 2000	447 x 1947	56.0111/0	56.0113/0
1000 x 2000	947 x 1947	56.0121/0	56.0123/0

Calculation of length for noise reduction strip and panel size



NOISE PROTECTION

REQUEST

Dimensions of the machine

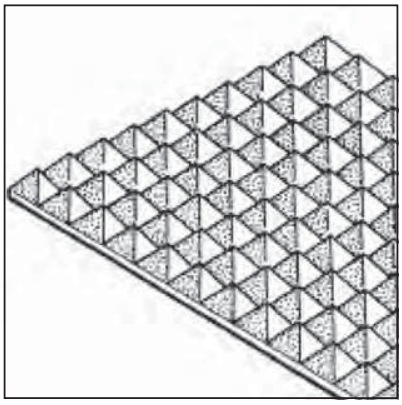
Width		mm
Length		mm
Height		mm
Machine type		
Current noise emission		dB(A)
Noise reduction you are looking for?		dB(A)
Frequency range if known		Hz
Heat rejection required?	☐ yes	☐ no

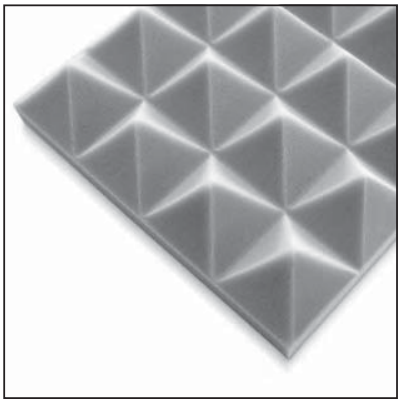
Contact details

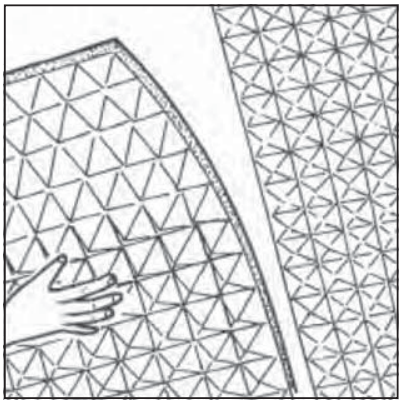
Company		☐ Please call me back
Contact person		☐ Please send me an offer
Phone no.		
Fax no.		
E-Mail		

ACOUSTIC ABSORPTION BOARD PYRAMID

part no. 21.1819/0







TECHN. DATA / ITEMS SUPPLIED

- Material: PUR-foam, anthracite, 70mm
- Fire protection classification 3
- Heat co-efficient at 0°C 0,032 W/mK
- Weight 1,5 kg/m2
- Board size 1000 x 1000 mm
- **Other strenghts and performances on request**

APPLICATIONS

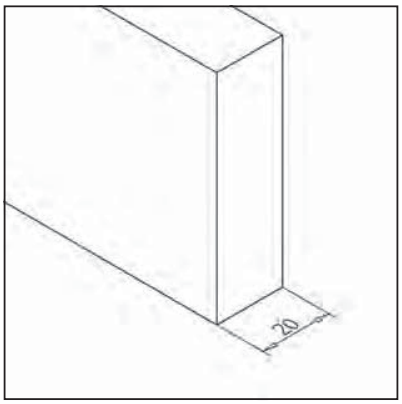
- Primary noise insulation through enclosure of noise source
- Secondary noise insulation in common rooms, master offices etc.

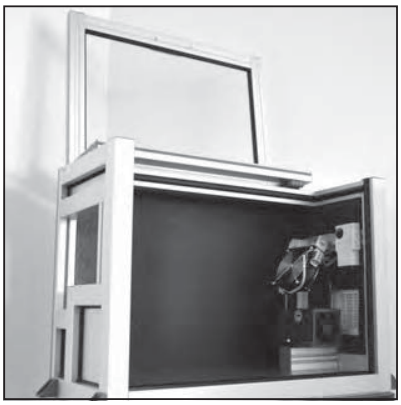
ASSEMBLY

- Fixation through conglutination with the underground
- According to underground suitable glue on request

ACOUSTIC ABSORPTION BOARD 20 MM

part no. 21.1879/0





TECHN. DATA / ITEMS SUPPLIED

- Material: Pu-foam, 20mm, black, adhesive
- Temperature resistance-40 bis +100°C
- Weight 0,650 kg/m2
- Board size max. 2000x1000mm

APPLICATIONS

- Through the black PU-skin immune to pollution

ASSEMBLY

- Lamination sheet pull down and glue on