



A Tata Steel Enterprise

## Acoustics.

Acoustics and design with perforated Montana profiles and liner trays



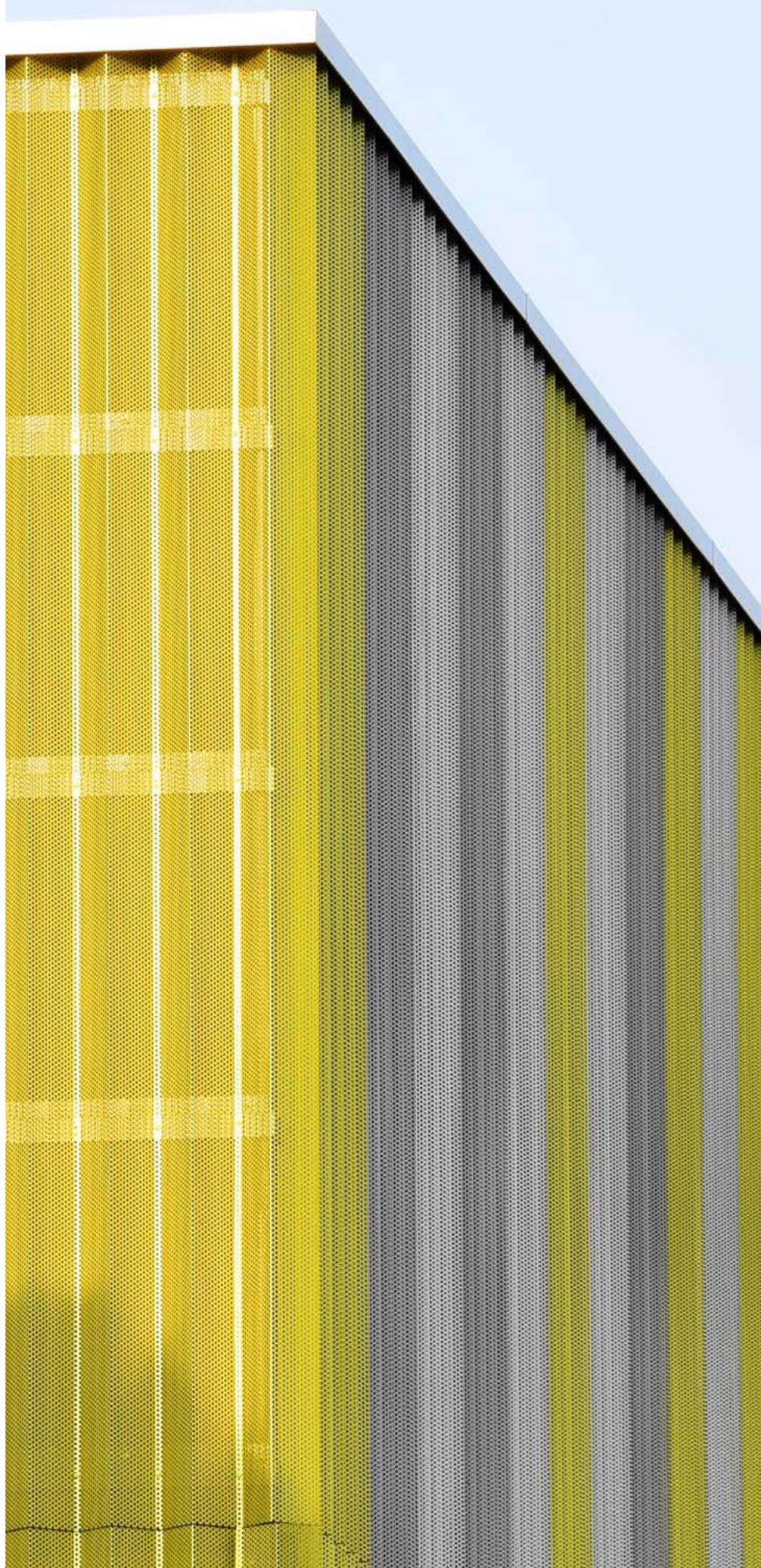
SWISS MADE<sup>+</sup>



# CONTENT

Ökihof, Unterägeri (CH)

- 3 ● **ACOUSTIC**  
Certified constructions
- 4–5 ● **AESTHETICS, EXPERIMENT, TRANSPARENCY**  
References
- 6–7 ● **PERFORATION**  
Technical details





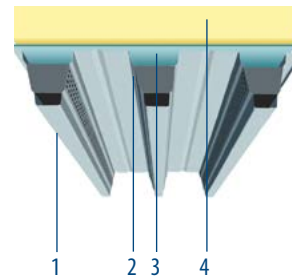
# LESS NOISE, LESS COST

## TOP MEASURED VALUES WITH MONTANA CONSTRUCTIONS

Montana profiles and liner trays attain excellent noise absorption values in transportation facilities and industrial acoustics. The highly effective solutions from Montana with perforated roof panels provide distinct cost advantages compared with subsequently fitted and traditional suspended acoustic ceilings. Savings of up to 30 – 50% are possible.

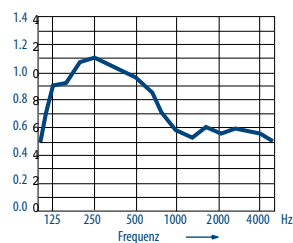
## EXAMPLES FOR CERTIFIED CONSTRUCTIONS

### FLAT ROOF

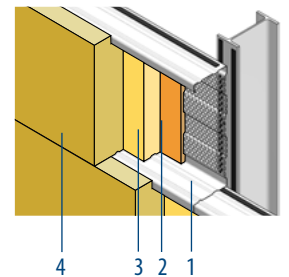


- 1 SWISS PANEL® SP 160 A
- 2 Acoustic strip for SP 160 A
- 3 Vapour barrier Sarnafil 1000 E
- 4 Insulation Isover Thickness 100 mm  
Density 125 kg/m<sup>3</sup> BKZ 6q.3

Statistic noise  
absorption level  
in accordance with ISO 354:

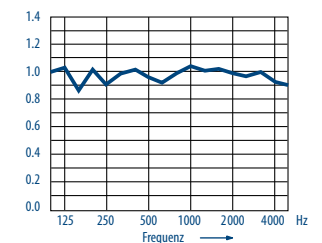


### MONTAPLUS®



- 1 MONTAWALL® MK 140/600A
- 2 ISOVER ISOLENE P, 20 mm
- 3 ISOVER ISOCONFORT 032 PR, 60 mm
- 4 ISOVER CLADISOL 032, 140 mm

Statistic noise  
absorption level  
in accordance with ISO 354:



There are more certified roof and wall constructions with excellent noise absorption values in our technical documentation Acoustics 7.10.

# AESTHETICS,

## FROM ACOUSTIC TO VISUAL APPLICATION

More and more architects are experimenting with the optical properties of perforated Montana profiles, with special attention being paid to the selective light transmitting capacity of the profile panels: the effect of daylight on the inside or of artificial light at night to the outside. This results in wonderful transparencies, which give the structure an additional dimension with a great deal of light and ease. You can see other perforated designs and request a visit from a Montana specialist by visiting our home page at [www.montana-ag.ch](http://www.montana-ag.ch)!



Postfinance Arena, Bern (CH)



Raiffeisenarena, Hägerdorf (CH)



**Website**  
[www.montana-ag.ch](http://www.montana-ag.ch)  
With additional product  
information and references.



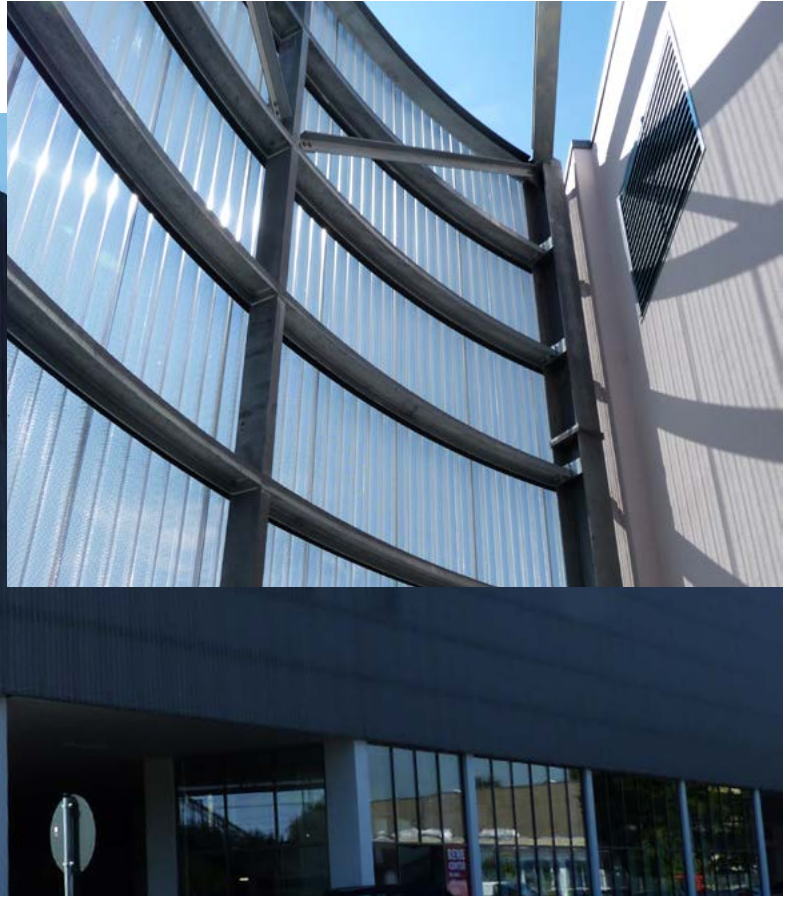
**Technical information**  
In the leaflet Acoustics 7.10  
For downloading.



**Colour chart**  
MONTACOLOR® collection with  
full summary. For downloading.

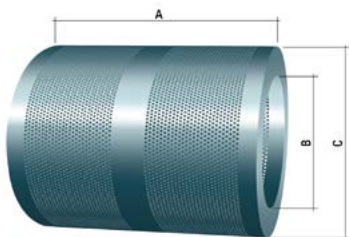


# EXPERIMENT, TRANSPARENCY



# PERFORATION

CIRCULAR PERFORATIONS SCALE 1:1	DIAMETER mm	PITCH (Tg) mm	ARRANGEMENT staggered in-line	OPEN AREA WITH FULL PERFORATION %	MATERIAL mm Steel	Aluminium	MAX. WIDTH mm	MIN. MARGIN OF THE EDGE mm	TOLERANCES mm Distance of the edge with special perforation	Pitch mm	TYPE OF PERFORATION
	3.0	5.0		32.7	0.70–1.00	0.70–1.00	1500	7.5	+/- 3.0	+/- 0.30	FULL PERFORATION ON THE WEB Open Area in %/m <sup>2</sup> rollformed ON FLANGES Open Area in %/m <sup>2</sup> rollformed
	3.0	5.5		23.4	0.70–0.80	0.70–1.00	1500	7.0	+/- 3.0	+/- 0.30	FULL PERFORATION ON THE WEB Open Area in %/m <sup>2</sup> rollformed ON FLANGES Open Area in %/m <sup>2</sup> rollformed
	4.0	6.0		40.3	0.70–1.00	0.70–1.00	1500	7.0	+/- 3.0	+/- 0.30	FULL PERFORATION ON THE WEB ON FLANGES
	4.0	7.0		29.6	0.70–1.25	0.70–1.00	1500	8.0	+/- 3.0	+/- 0.30	FULL PERFORATION ON THE WEB ON FLANGES Open Area in %/m <sup>2</sup> rollformed
	5.0	8.0		35.4	0.70–1.25	0.70–1.20	1500	8.0	+/- 3.0	+/- 0.30	FULL PERFORATION ON THE WEB Open Area in %/m <sup>2</sup> rollformed ON FLANGES Open Area in %/m <sup>2</sup> rollformed
	8.0	12.0		40.3	0.70–1.25	0.80–1.50	1500	12	+/- 3.0	+/- 0.30	FULL PERFORATION ON THE WEB ON FLANGES
	11.0	14.0		64.3		0.80–1.50	1250	14	+/- 3.0	+/- 0.30	FULL PERFORATION ON THE WEB ON FLANGES



## MEASUREMENT

A = min. 300 mm (Alu: 360 mm)  
max. 1,500 mm  
B = min. 500 mm / max. 600 mm  
C = max. 1,200 mm

## COIL MATERIAL

min. lengths = 15 m

## MAX. WEIGHT

steel 10 t  
aluminium 2.5 t

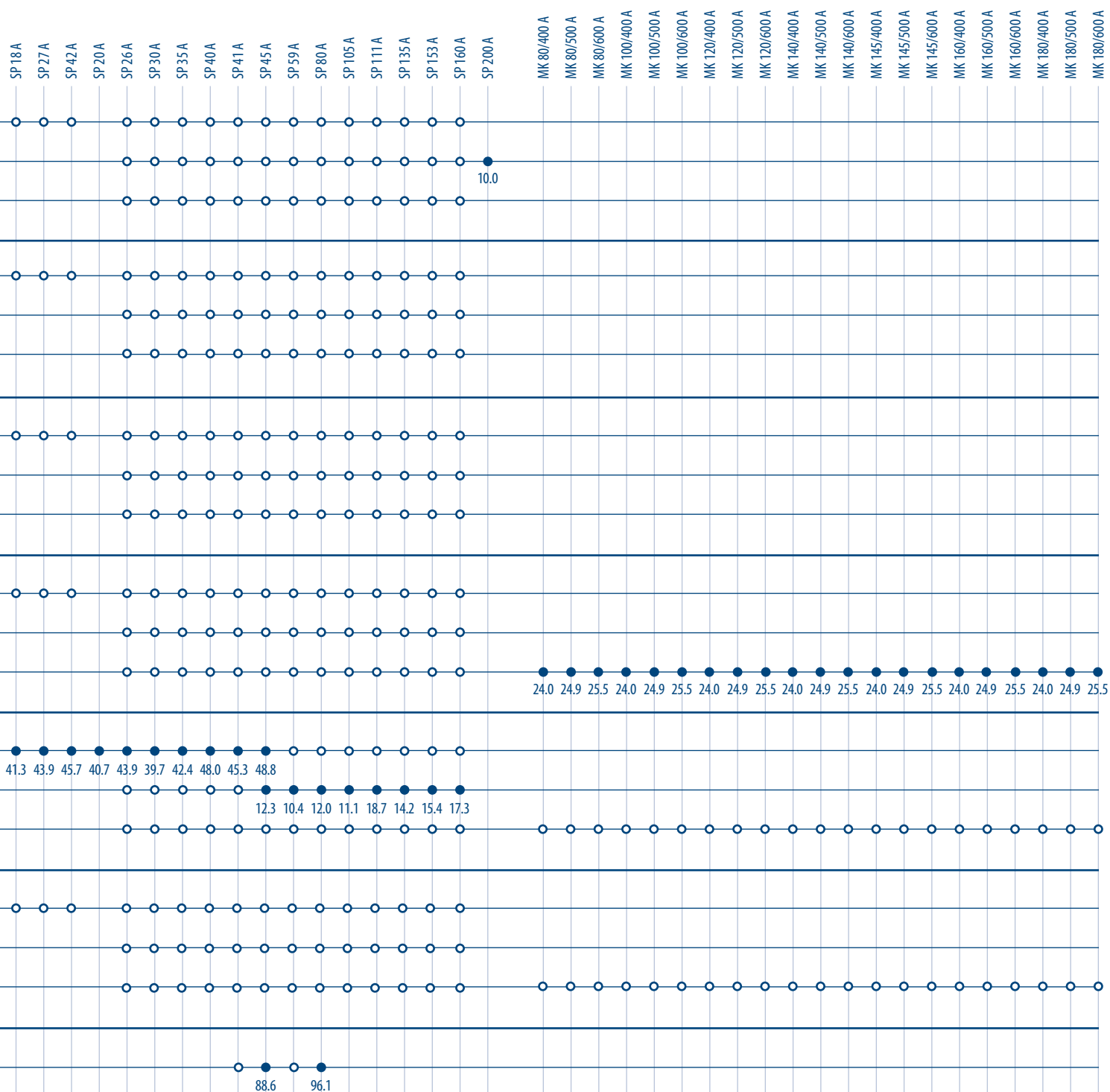
## ON REQUEST

The perforated coils can be cut to flat sheets and bend until max. 8 m!

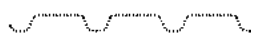
Flat sheets cannot be perforated!

**SWISS PANEL®**  
According the feasibility

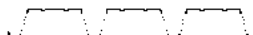
**MONTAWALL®**  
According the feasibility



**FULL PERFORATION**



**ON THE WEB**



**ON FLANGES**



**ON FLANGES**



- Standard perforation
- Delivery on request

# [www.montana-ag.ch](http://www.montana-ag.ch)

## **Trademarks of Tata Steel**

Montana is a registered trademark of Tata Steel.

While care has been taken to ensure that the information contained in this publication is accurate, neither Tata Steel, nor its subsidiaries, accept responsibility or liability for errors or for information which is found to be misleading.

Before using products or services supplied or manufactured by Tata Steel and its subsidiaries, customers should satisfy themselves as to their suitability.

Copyright © 2024  
Montana Bausysteme AG

**MONTANA BAUSYSTEME AG**  
Durisolstrasse 11  
CH-5612 Villmergen  
+41 56 619 85 85  
[www.montana-ag.ch](http://www.montana-ag.ch)  
[info@montana-ag.ch](mailto:info@montana-ag.ch)

**MONTANA SYSTÈMES  
DE CONSTRUCTION SA**  
CH-1028 Préverenges  
+41 21 801 92 92

**MONTANA BAUSYSTEME AG**  
Zweigniederlassung  
D-86845 Großaitingen  
+49 8203 95 90 555