

# MAFUND Rubber Sheets

## for Vibration Isolation and Structure-Borne Noise Reduction

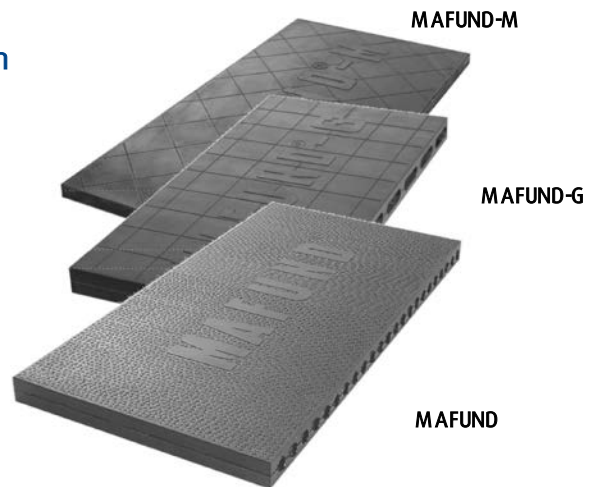
- Load capacity up to  $5.24 \text{ N/mm}^2 = 5240 \text{ kN/m}^2$
- Vertical natural frequency 6.6 Hz (minimum)

### ■ Mode of Function

The function mode of a vibration isolation with MAFUND sheets is based on the periodic or intermittent generation of vibrations from the source of disturbance which are reduced in the sheets and thus considerably reduce vibration and structure-borne noise transmission.

### ■ Advantages

- MAFUND consist of a highly elastic rubber mixture with a high anti-ageing stability.
- Temperature range (-20 °C to +80 °C)
- MAFUND sheets are weather resistant.
- The material reduces vibration amplitude and force transmission during start-up and shut-down of the machine (resonance flow) and shortens the vibration processes when impulse triggers are used.
- Due to the high loading capacity of MAFUND sheets it is, in most cases sufficient to cover the floor with strips of MAFUND (partial surface covering). Thus it is possible to adjust the elastic bedding optimally to the required demands and to achieve the best isolation effect of the elastic bedding with a minimum of material.
- In contrast to the full surface bedding, the MAFUND sheets can be adjusted to the gravity centre of the machine when applied in strips, thus avoiding differing spring deflection and poor isolation effects.
- Due to the high static friction of the MAFUND sheets, an installation without further fixing is in most cases possible.



- **Layout of elastic Bedding for Vibration Isolation and structure-borne Noise Damping with MAFUND**  
 MAFUND can be used directly under the machine as well as its base frame has sufficient torsion rigidity. Is the torsion rigidity insufficient, an intermediate foundation, as well as a base frame, which are deflection and torsion resistant, are required. Using an intermediate foundation for isolation purposes is the classical type of isolation to reduce vibration and structure-borne noise transmissions, and by which the best isolation effect is achieved.

### ■ Selection criteria

The required dimensions are determined in consideration of the natural frequency, the permissible surface load, the existing supporting surface as well as the number of supporting points. For achieving the required natural frequency and the best possible isolation effect, the MAFUND sheets can be applied in multiple layers.

### ■ Dimensions and weights

| Type           | Allowed statical permanent load capacity<br>[N/mm <sup>2</sup> ] | Operative range – static + dynamic<br>[N/mm <sup>2</sup> ] | Layers          | Dimensions                  |                            |           | Weight     |                      |
|----------------|--|--|-----------------|-----------------------------|----------------------------|-----------|------------|----------------------|
|                |  |  |                 | Length <sup>1</sup><br>[mm] | Width <sup>1</sup><br>[mm] | Thickness | [kg/plate] | [kg/m <sup>2</sup> ] |
| MAFUND plate   | 0.64   | 0.85   | 1 layer         | 500                         | 250                        | 20        | 3.2        | 25.6                 |
|                | 0.37   | 0.49   | 2 layers, glued |                             |                            | 50        | 6.4        | 51.2                 |
|                | 0.27   | 0.36   | 3 layers, glued |                             |                            | 75        | 9.6        | 76.8                 |
| MAFUND-G plate | 0.22   | 0.29   | 1 layer         |                             |                            | 30        | 3.2        | 25.6                 |
|                |  |  | 2 layers, glued |                             |                            | 62        | 8.4        | 66.8                 |
|                |  |  | 3 layers, glued |                             |                            | 94        | 13.6       | 108.8                |
|                |  |  | 4 layers, glued |                             |                            | 126       | 18.8       | 150.4                |
| MAFUND-M plate | 5.24   | 7.85   | 1 layer         |                             |                            | 15        | 2.3        | 18.4                 |

<sup>1</sup> standard format

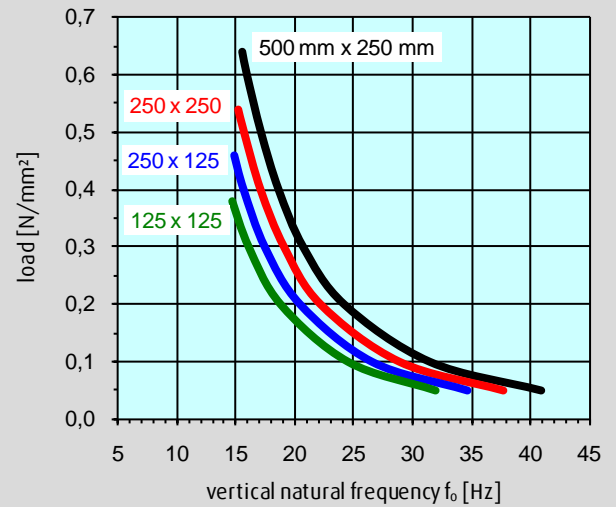
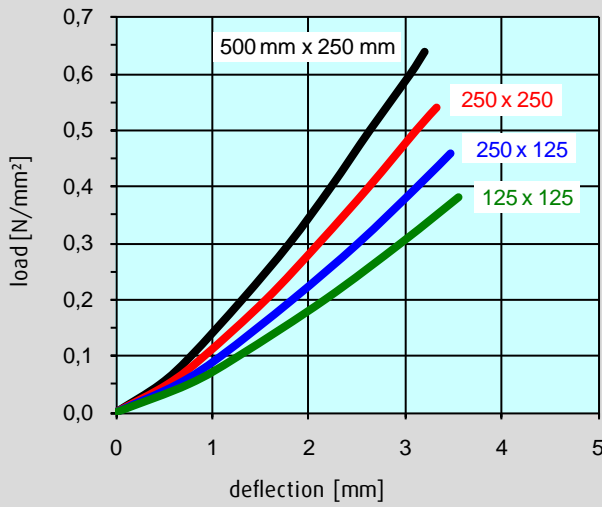
### ■ Preferred cuttings in mm

|        |     |     |     |     |    |
|--------|-----|-----|-----|-----|----|
| Length | 500 | 250 | 165 | 125 |    |
| Width  | 250 | 125 | 83  | 62  | 50 |

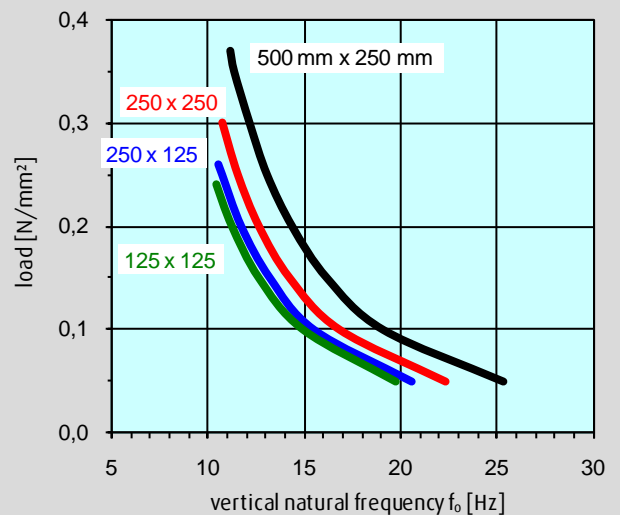
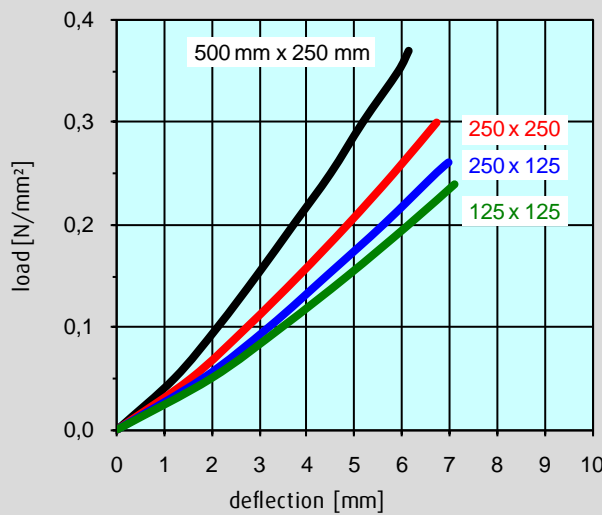
customized cuttings on inquiry MAFUND-G plate: width ≥ 125 mm



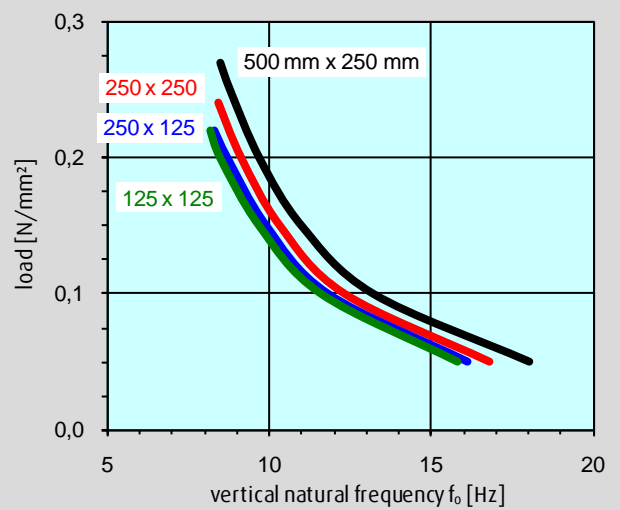
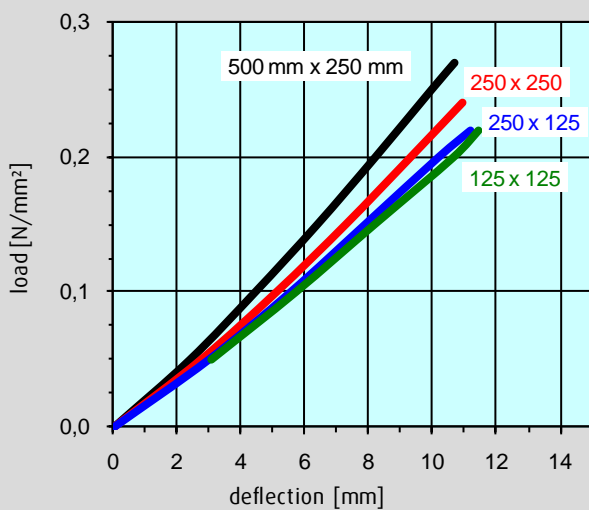
### MAFUND, 25 mm thick



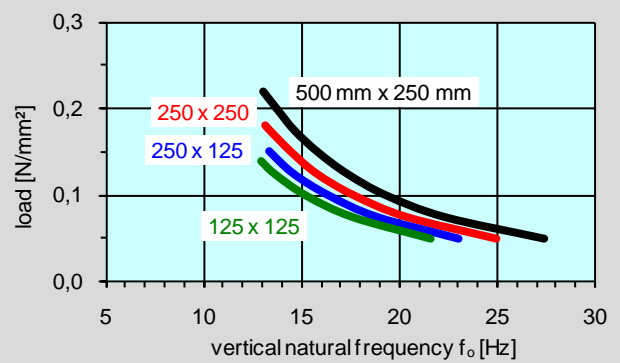
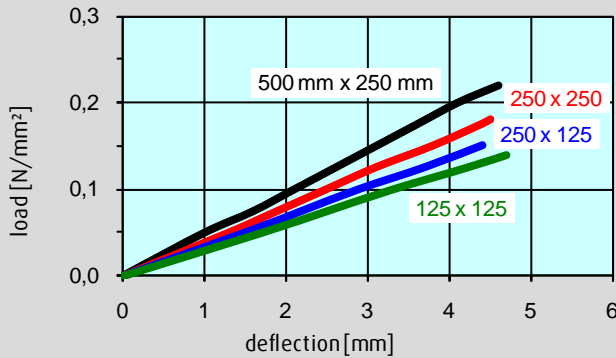
### MAFUND, 50 mm thick (2 layers glued)



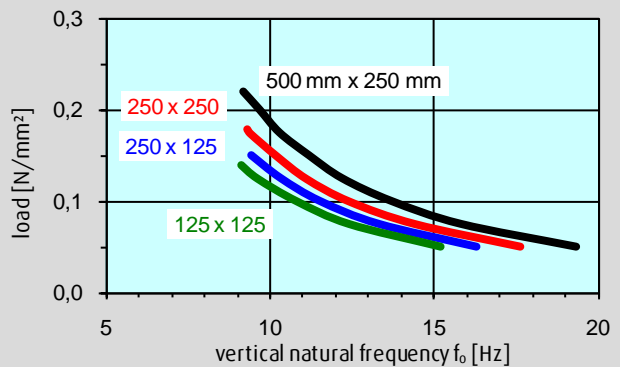
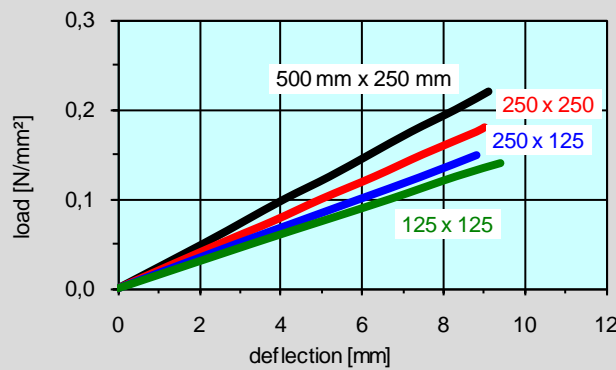
### MAFUND, 75 mm thick (3 layers glued)



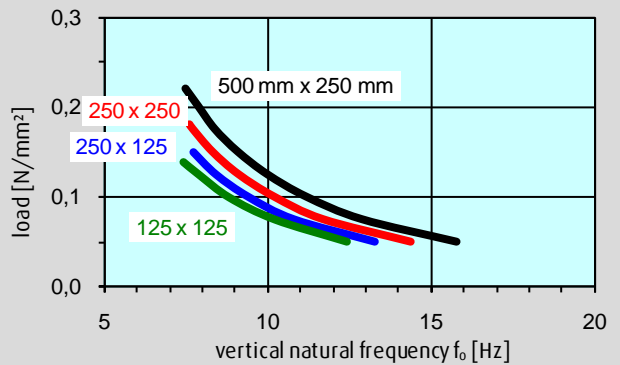
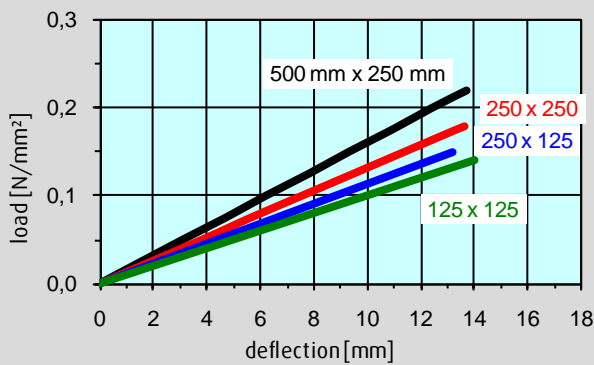
**MAFUND-G, 30 mm thick**



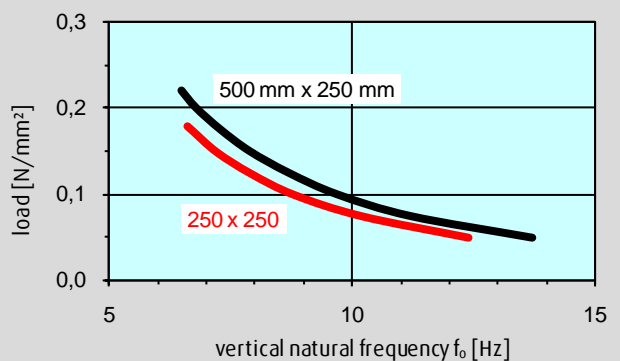
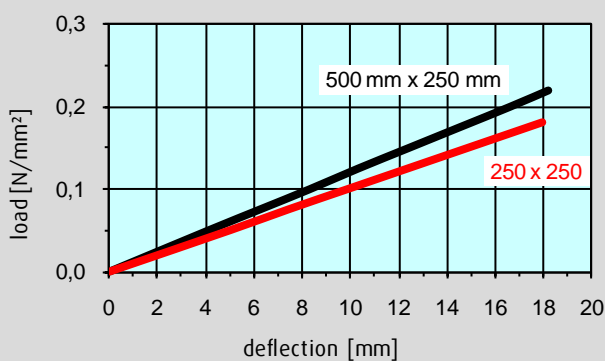
**MAFUND-G, 62 mm thick (2 layers glued with sheet metal)**

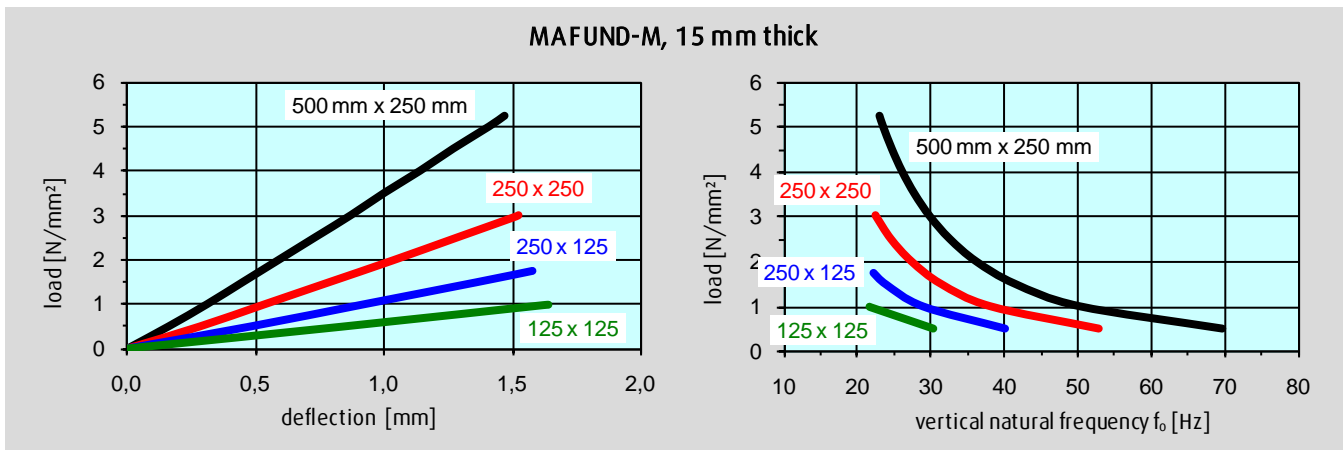


**MAFUND-G, 94 mm thick (3 layers glued with sheet metal)**



**MAFUND-G, 126 mm thick (4 layers glued with sheet metal)**

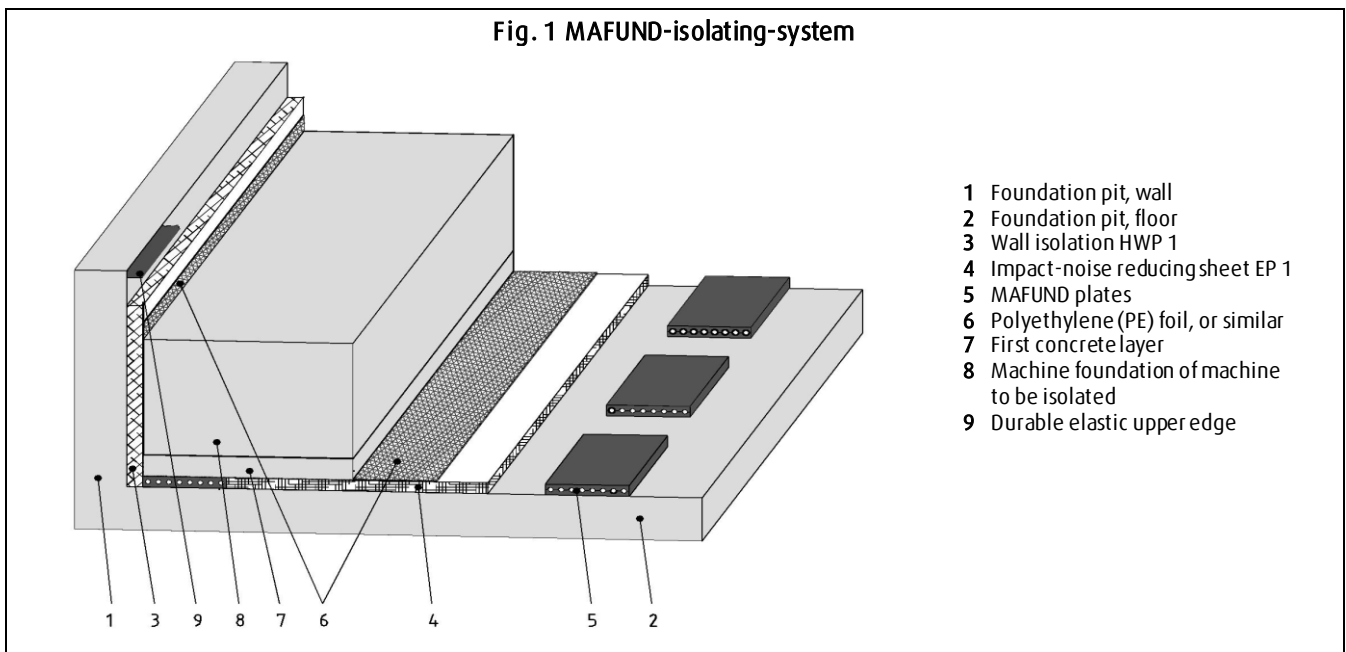




■ **MAFUND-Damping system (Fig. 1)**

- The MAFUND damping system consists of MAFUND sheets (cuttings) and filling material, which is adjusted and at the same time serves as lost encasing. The MAFUND Damping system is suitable for machine foundations of all sizes and design.
- Apart from vibration isolation and structure-borne damping, the dynamic forces that pass into the (building) ground are reduced, thus the foundation can be designed much smaller than non-isolated foundations. The shake-in and compression effects resulting from dynamic alternating forces on non-isolated foundations, connected with an often one-sided - foundation incline are prevented. The MAFUND damping system, allows for particularly economic solutions adapted to the respective conditions. Work can be done without using an encasing!

The intermediate foundation is constructed in the shape of a sheet or a block foundation without a rigid connection to the environment. The main characteristics of such intermediate foundation are the simple design, high rigidity, a stable weight and load distribution on the isolation elements, reduction of the vibration amplitudes as well as improvement of structure-borne noise damping, as the intermediate foundation also acts as steadying mass.



The data given in this product information are based on our present state of knowledge, reflect the state-of-the-art technology and are subject to change. Warranty is granted only on the basis of individual contracts and execution by G+H Schallschutz.