



OPERATOR MANUAL

STRESS DIFFUSERS MSD TYPE

No. OM_MSD

Installation carried out in an appropriate way, using professional tools is extremely important for proper and safe use of building fasteners. Always follow all instructions listed in this operator manual.

General rules:

- The operator manual, apply only to original products of Baltic Fasteners Sp. z o.o. bearing the Manufacturer's logo, which allows for their identification;
- The use of a stress diffusers shall be confirmed by a fixing plan made on the basis of complete building data;
- When carrying out the fixing plan, observe the mounting parameters and take into account the loads of the connections given in valid approval or technical evaluation issued for the product;
- When carrying out the fixing plan, comply with applicable laws and standards;
- Stress diffusers can only be used with sandwich panels with a hidden lock. The sandwich panel Manufacturer's recommendations must be taken into account;
- **MSD** diffusers may only be used with sandwich panel screws supplied by Baltic Fasteners Sp. z o.o.;
- The number and type of screws must be in line with the information given in the fixing plan;
- Only tools that are equipped with clutch adjustment should be use;
- Modification of **MSD** stress diffusers, including cutting, is not permitted;
- Products may only be used for their intended purpose.

Product selection rules:

- The diffuser type should be selected according to the substrate and the support system. The hole spacing should take into account the amount of space on the support;
- Stress diffusers 80 mm are used for fixing sandwich panels to edge supports made of **Z-section** or **C-section** steel profiles. 100 mm stress diffusers are used for fixing sandwich panels to intermediate supports made of **I-beam** steel profiles in multi-span systems or to edge supports if the profile width is sufficient. 150mm stress diffusers (25mm spacing) are used to fix sandwich panels to edge and intermediate supports made of steel in multi-span systems. The solution for use when high wind loads appear and I-beam profile is very wide. 150mm stress diffusers (15mm spacing) are used for fixing sandwich panels to concrete supports. Hole spacing allows fixing by using a variety of embedment depth of the screws;
- Stress diffuser material and corrosion protection should be suitably selected for the corrosive environment in which it will be used. Diffusers made of galvanized carbon steel can be used in class **C2** environments, stainless steel diffusers in **C4** class environments;
- For mounting of the stress diffusers, screws with a washer of 19mm diameter must be used;

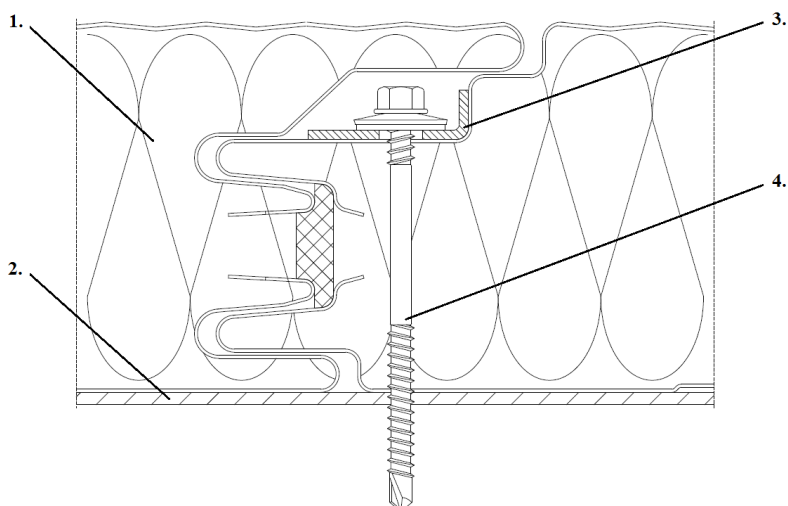
- Thickness of stress diffuser should be taken into consideration when choosing the length of the screws used to install the sandwich panels. **MSD** diffusers are **1.2mm** thick;
- Screws should be selected according to the latest catalog of Baltic Fasteners Sp. z o.o.. In addition, observe the rules and guidelines for the selection and assembling of the screws contained in the operator manual created for each type of screw.

Installation process:

- Place the sandwich panel, following instruction provided by the panel Manufacturer. Use of the startup profiles is recommended. Use of **PES** insulating tapes at the contact surface between panel / support is recommended;
- Properly selected **MSD** stress diffuser should be set in the sandwich panel lock of the plate;
 - a) The stress diffuser must fit tightly against the sandwich panel lock (**Picture 1**);
 - b) The stress diffuser must be set in the sandwich panel lock (**Picture 2**) so that all holes for which the fixing was provided can be used as it was planned in the fixing plan. Picture 2 shows an example of installation using 80x22x1.20 diffuser;
- The panel and diffuser should be screwed to the substrate with the selected screws. It is imperative to observe all the rules set out in the operator manual for selected screws. The number of screws must be in line with the fixing plan. Screws must always be fixed perpendicular to the substrate. The EPDM washer should be properly tightened as shown in the drawing below;

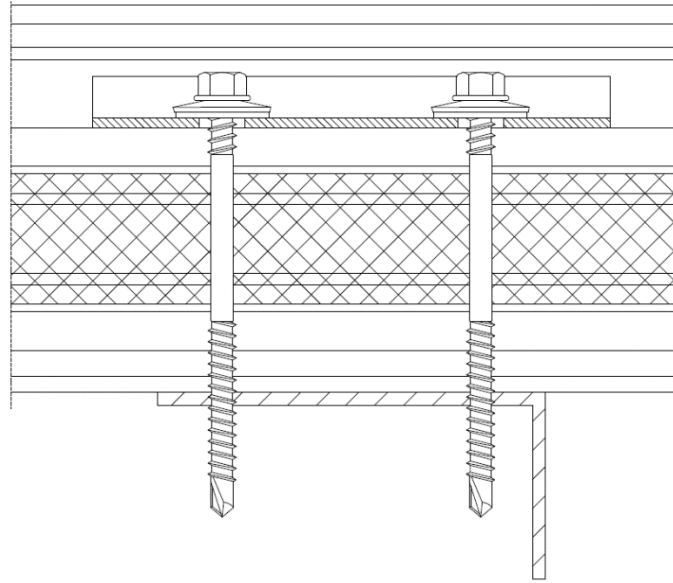


- Once you have fixed the panel, proceed to assemble the next one by following the procedure given above.



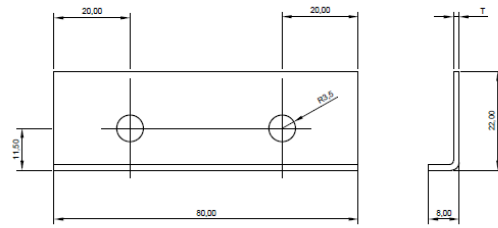
1. Sandwich panel
2. Substrate
3. Stress diffuser MSD
4. Sandwich panel screw

Picture 1. Assembling of the MSD stress diffuser in the lock of the panel - cross section across the sandwich panel.

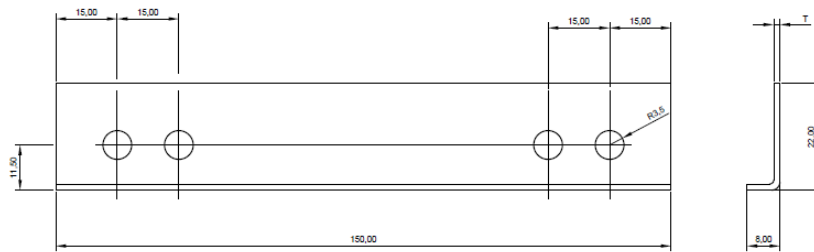


Picture 2. Assembling of the MSD stress diffuser in the lock of the panel - cross section along the sandwich panel.

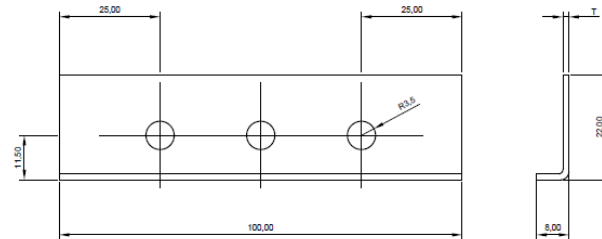
Basic dimensions of MSD diffusers:



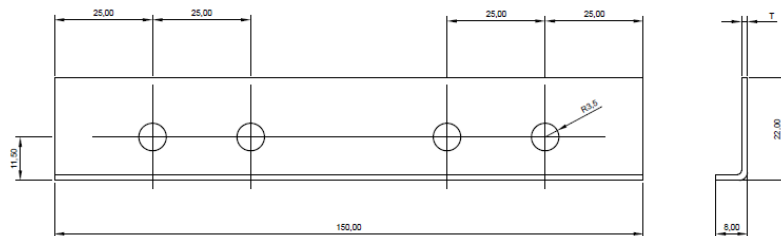
Picture 3. MSD 80x22x1,20



Picture 4. MSD 150x22x1,20 (hole spacing 15mm)



Picture 5. MSD 100x22x1,20



Picture 6. MSD 150x22x1,20 (hole spacing 25mm)